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UNITED STATES OF AMERICA

IN THE SUPREME COURT

ALEX. J. GROESBECK, et al,
Defendants and Appellants,
vs.
DULUTH, SOUTH SHORE & ATLANTIC RAILWAY COMPANY,
Plaintiff and Appellee.

No. 759
October Term, 1918.

BRIEF FOR APPELLANTS

STATEMENT OF FACTS.

This suit was instituted by bill of complaint filed by the Duluth, South Shore & Atlantic Railway Company on the 28th day of July, 1911, for the purpose of enjoining the enforcement of the amended passenger fare law of the State of Michigan, as applied to plaintiff's railroad. The Attorney General of the State and the members of the Michigan Railroad Commission were made parties defendant to the action. These appellants are the successors in office of the original defendants. In addition to the State officials named three individuals were formally

joined as representatives of the traveling public. These individuals, however, took no part in the case at any stage of the proceeding and they have not joined in this appeal from the decree of the lower court.

The statute attacked in this case, the so-called two-cent fare law of the State, is found in section 9 of Act 198 of the Public Acts of the State of Michigan for the year 1873, as amended by Act 276 of the Public Acts of 1911 (section 8243 of the Compiled Laws of 1915) commonly referred to as the general railroad law of the State. In substance, this section of the statute, as amended, requires that all railroads of the State whose gross passenger earnings as reported to the State Railroad Commission exceeds the sum of $1,200 per mile should be permitted to charge a maximum rate of fare of two cents per mile for the transportation of any passenger and his ordinary baggage not exceeding 150 pounds in weight. The statute also contains the usual provision of one-half fare for children under twelve years of age.

Prior to the time that Act 276 of 1911 became operative, the plaintiff company was permitted by law to charge on the basis of three cents per mile. Immediately before the date that the amendment of 1911 went into effect, plaintiff filed its bill setting up that it was subject to the act because its gross passenger earnings exceeded the sum of $1,200 per mile of road, and alleging that if it were compelled to reduce its rates to the basis of two cents per mile for each passenger carried in intrastate traffic, it would thereby be deprived of the right to earn a reasonable return upon that portion of its property devoted to the intrastate passenger business, and that in consequence such property would be confiscated contrary to the provisions of the Fourteenth Amendment of the Federal Con-

stitution (Record Vol. 1, page 11). Averments were also included in the bill asserting that the plaintiff company was discriminated against, that its inter-state traffic was interfered with and other matters, but these questions were not regarded in the court below as material. At all stages of the proceeding, the question of confiscation has been considered to be the vital issue. The entire inquiry in the district court was directed to this point as is shown by the opinion of the trial court.

The plaintiff company in its bill of complaint sought a temporary restraining order, and also temporary and permanent injunctions, to prevent defendants from taking any action whatsoever to enforce the statute. Upon the filing of the bill, the restraining order asked for was issued by Judge Angell. The application for the temporary injunction was duly argued before three judges of the federal court, but before a decision was rendered a re-argument became necessary because of the retirement from the bench of one of these judges. For reasons that have no bearing on the determination of the issues here, such re-argument was never had. The temporary restraining order was, however, continued in effect by various court orders made from time to time, until the final decree of the district court, from which this appeal is prosecuted, was rendered. Because of the existence of this outstanding restraining order, the statute has never been put in actual operation on plaintiff's railroad, and plaintiff has never carried passengers in intrastate traffic in Michigan at two cents per mile. We have not in this case, therefore, the benefit of an actual test as to the effect of the operation of the rate fixed by the statute.

It should be mentioned in this connection that by order of the court the continuance of the restraining order re-

ferred to was conditioned on the issuance by plaintiff of so-called "rebate coupons" to each passenger buying a ticket or paying a cash fare for transportation in intrastate traffic. This coupon or certificate obligated the railroad company to repay to each such passenger the amount of the excess fare collected from him in the event that the validity of the statute is finally upheld by the court (Record Vol. 1, page 15). By subsequent orders of the court, all of which appear in the record, plaintiff was required to give a bond in the sum of $200,000 to insure the performance of its obligation. It finally appearing that the bond was not sufficient to cover the amount of the liability of the company in the event that a decree adverse to it should be rendered, it was required by the court that a redemption fund should be created for the protection of the holders of the rebate coupons or certificates, the excess fares collected being deposited in such fund. The decree of the trial court (Record, Vol. 1, page 92) required the plaintiff to continue issuing these coupons or excess fare receipts. We understand that this practice was continued by the plaintiff company up to the time that the rates of fare prescribed by the United States Railroad Administration went into effect.

The fund created to take care of the coupons has been kept intact for the purpose for which it was created pending the final outcome of the case. It is our understanding that the amount in such fund at the present time is materially in excess of $800,000, which, if the validity of the statute is upheld by this court, will be returned to the individuals from whom the excess fare has been collected on presentation of the receipts. Because of these outstanding obligations the question becomes material as to the validity of the two-cent law during each and every year

since Act 276 of 1911 became operative, in which its operation has been suspended by virtue of the restraining order. If the statute was valid as to any of such years, the holders of coupons issued during that year are entitled to the refund. It is necessary to determine, therefore, not only the effect of the prospective operation of the statute but also whether the same would have been confiscatory in each of the various fiscal years 1912 to 1917 inclusive.

On the filing of the answer to the bill, denying the main allegations thereof, a Master was appointed by the court, to whom was referred the taking of testimony and reporting on the issues in the case. At that time, the Minnesota rate case was pending before this court and it appears that there was some delay on the part of the Master and of counsel due to a mutual desire to await the decision to the end that certain disputed questions of practice and principles of law might be definitely settled. Extended proofs were finally presented by both sides covering the fiscal years ending June 30, 1912 and June 30, 1913. In its showing the railroad company assumed that if its intrastate passenger rate was reduced to a two cent basis, it would do no greater business than under the three cent rate. In other words, a flat loss was assumed (Record Vol. 1, page 343). On the closing of the testimony in March, 1915, the case was submitted to the Master, who presented his report to the court on the first day of February, 1917. This report appears as Volume III of the Record in this court. Exceptions to the Master's report were duly taken by both parties and the case was brought on in the District Court for the Eastern District of Michigan before Judge Sessions. It was the desire of the court that the proofs should be brought down to date, and accordingly the parties to the case undertook

the furnishing of additional testimony covering the operations of the plaintiff company from the 1st of July, 1913, to and including the 30th of June, 1917. This additional testimony was offered in open court, and the case was submitted on this testimony and on the previous testimony taken and recorded before the Master. For the reasons set forth in his opinion (Record Vol. I, pages 73, 89 inclusive), the District Judge held that the State statute was invalid as applied to plaintiff's railroad, and that its operation should be enjoined. From the decree rendered pursuant to this opinion (Record Vol. 1, pages 90, 92) the defendant officials of the State have prosecuted this appeal.

The system of the Duluth, South Shore & Atlantic Railway Company extends across the Upper Peninsula of Michigan from east to west, and also crosses the northern part of Wisconsin to Duluth, Minnesota. It connects with the Canadian Pacific, which company controls plaintiff's system through stock ownership, at the latter city as well as at the city of Sault Ste. Marie, Michigan. Exhibit A-1, which is a railroad map of the State of Michigan and which has been returned to this court with the other Exhibits in the case, shows the precise location of that part of plaintiff's system lying within this State. The total mileage, as stated in the bill of complaint (Record Vol. I, page 2), is approximately 584 miles of main line and branches, of which 475 miles of track is situated in Michigan. Practically all of the remaining mileage is in the state of Wisconsin where, as appears by the allegations of the bill of complaint, plaintiff charges two cents per mile for intrastate passenger traffic (Record Vol. 1, page 6).

In addition to the Michigan mileage of main track and branches, there is an extensive mileage of spurs and sidetracks, most of which are used exclusively in the freight business. The aggregate mileage of all track within the State is classified as follows:

Miles of main line used in common service	408.25
Miles of main line used in exclusive freight service	12.07
Miles of spurs and sidings used in passenger service	2.10
Miles of branches, spurs and sidings used in exclusive freight service	158.34
Miles of branches, spurs and sidings used in common service	40.80

(Record Vol. V page 524.)

It will be noted that there is a very high proportion of track mileage devoted exclusively to the freight traffic, a situation undoubtedly due to the peculiar nature of the business of the plaintiff company, especially its ore business. We shall refer to this fact later, particularly in connection with the discussion of the question as to the division of property and expenses.

Plaintiff's system as a whole comprises three distinct divisions: the so-called Eastern Division, serving the eastern part of the Upper Peninsula of Michigan and extending between St. Ignace, Sault Ste. Marie and Marquette; the Houghton Division, comprising that part of the system extending from Marquette west to Nestoria, thence to Houghton, or, as it is commonly referred to in Michigan, "the copper country"; the Western Division, embracing all of that part of the system west of Nestoria, Michigan, to Duluth, Minnesota, including the Wisconsin

mileage and having a total of 101 miles of main line track within the State of Michigan. The first two divisions serve in the main intrastate traffic insofar as passenger business is concerned; the third or Western Division is primarily an interstate proposition, connecting the Duluth, South Shore & Atlantic with the Canadian Pacific at Duluth.

In this connection we wish to call the attention of the court to the allegation in the bill of complaint (Record Vol. 1 page 2) that the principal business of the system of the plaintiff company is interstate commerce either wholly upon its own line or in conjunction with other carriers. The matter of the construction and operation of this Western Division is of vital importance in this case and we shall insist that it always has been, and now is, an interstate project, and that for the purpose of determining whether the intrastate passenger fare law is constitutional, as applied to plaintiff's system, the earnings and expenses of this division should be segregated from the earnings and expenses of the other divisions. It is our claim that the intrastate business cannot justly be burdened with a loss arising from an added part of the system designed and operated for interstate traffic.

It will be noted from the railroad map above referred to (Exhibit A-1) that the plaintiff company has two lines of track from the city of Marquette west to Ishpeming and Negaunee. The so-called south line was built in the years 1883 and 1884 for the purpose of competing with the road then operated by plaintiff's predecessor, principally in the transportation of ore. The reports to the State Railroad Commission, which have been returned with the other original exhibits, indicate the nature of the business. In 1885 the Marquette, Houghton and Ontonagon (plaintiff's

predecessor) purchased the south line (Record Vol. II page 1072) for the purpose of avoiding a ruinous competition. Both lines have since been continuously maintained and operated. It is not claimed, however, that the acquisition of the south line in its first instance nor its continued maintenance and operation was necessary in order to take care of the passenger traffic, nor for that matter, any traffic. It is obvious that we have here presented a factor that is not usually involved in a passenger rate case.

The railroad map also discloses that plaintiff company is compelled to compete in its ore business with the Lake Superior and Ishpeming. In the testimony of the witness Payne (Record Vol. II pages 1101, 1102) is set forth the reasons that led to the construction of this road. It appears that the predecessor of the plaintiff company charged a rate for the transportation of ore that the owners of the mines regarded as excessive. Refusal to reduce the rate was the real cause for the building of a competitor that has taken from the plaintiff company a large volume of business that it otherwise would have enjoyed. The inference is irresistible that because of bad judgment in a matter of business policy, the traffic of plaintiff here has been prejudiced.

The plaintiff company has been engaged for a number of years past in the operation of the track of the Mineral Range Railroad Company extending from Houghton to Calumet, Michigan. During the years 1914 to 1917 at least, the Mineral Range Company received the fares; and the South Shore received a certain amount of rental from other companies, namely, the Chicago and Northwestern and the Chicago, Milwaukee and St. Paul. The amount of such rental that can properly be apportioned to the account of the Mineral Range on a mileage basis is compara-

tively small, however, amounting in the year 1917 to $1,694.14 (Record Vol. V page 710). It appears from the testimony of plaintiff's General Manager, Mr. W. W. Walker, that the construction of an interurban line a number of years ago "forced the Mineral Range to take off its passenger trains." (Record Vol. II page 1159.) Subsequently the Duluth, South Shore & Atlantic undertook the operation. No mention of this op tion is found in the bill of complaint; but the railroad company insisted on its right to include the operation of this road as a part of its operations and added the expenses accordingly. It has been the contention of the appellants throughout, and it is now their contention, that the Mineral Range has been operated at a loss, that such operation was undertaken to take care of interstate traffic, and that under no view of the case can it properly be included.

To the decree of the trial court, the defendants duly prepared and filed their assignments of error (Record Vol. I pages 99 to 103). Subsequently a statement made by counsel for the purpose of limiting the record on appeal was filed on behalf of defendants (Record Vol. I pages 125, 128), which to some extent modifies the questions set forth in the assignment of errors. We wish to discuss herein only the points raised that seem to us to be of controlling importance, necessarily passing by many interesting questions presented by the Record, some of which were earnestly contested before the Master in the court below, but the determination of which cannot be reasonably claimed to be vital to the determination of the case as presented to this court on the record.

We shall insist herein that the decree of the trial court was erroneous and that it should be reversed for the following reasons:

(1) Because the so-called South Line was included in plaintiff's property for the purposes of this case, was valued on the cost of reproduction less depreciation theory and no deduction was made by plaintiff or by the court on account of the cost of operating and maintaining the same;

(2) Because the Western Division was permitted by the court to be valued on the same theory and no separation of the revenues and expenses of such Division was required on the part of the railroad company;

(3) Because the expenses of the operations on the Mineral Range Railroad were included with the result that the revenues received by the Railroad Company from the operation of its own property (the threatened confiscation of which is the issue here involved) were diminished by the losses so incurred;

(4) Because the District Court treated and considered the sleeper and diner businesses as an integral part of the passenger traffic and refused to consider them as auxiliary or outside operations and to assign to the same their proper proportion of the property and particularly their proper proportion of the expenses;

(5) Because the District Court employed for the purposes of this case improper methods and factors for the division of common property and common expenses between freight and passenger traffic;

(6) Because the Court determined that the evidence produced by the plaintiff was sufficient to overcome the presumption of validity and to establish confiscation, and assumed that under the operation of the statute assailed, the plantiff company would suffer the loss of revenue because of the reduction in rate, based on the business done

under the higher rate, and without any allowance whatever for a probable increase in business following a reduction.

We wish to take up the consideration of these propositions in the order above stated. It will be noted that the first three are of similar character and perhaps they might logically be discussed together. However, for the sake of clarity we believe that it is preferable to treat them separately in order that no possible confusion may arise with reference to the facts involved.

Before taking up these points in detail, however, we wish to refer briefly to the matter of valuation. The District Court indicated in his opinion (Record Vol. 1, page 83) that an accurate fixing of the value of plaintiff's property devoted to the intrastate passenger business was not necessary because of the conclusion reached by him on the other issues in the case. He, therefore, did not indicate in figures any specific finding as to valuation. It is apparent, however, that if certain of the other material propositions had been differently decided by the court, the finding of an approximately accurate value would have been required. The figures arrived at by the Master are of little value for the reason that they represent, not value, but the cost of reproducing, less depreciation. It is obvious from reading the Master's report that he disregarded the fact that in any event the reproduction method may properly be used only as a means to an end, the end being, of course, the ascertaining of fair present value. The Master, however, regarded it as the end itself.

In the statement made by counsel for defendants for the purpose limiting the record on appeal (Record Vol. I,

page 125) it was indicated that defendants would question, in certain particulars, the valuation arrived at by the Master. We believe that the record fully sustains our contentions with reference to all of the matters specifically referred to in said statement. The testimony as to the valuation of the various properties of the plaintiff is very full and detailed. Large numbers of witnesses were examined and it is not denied that each witness gave his best judgment for the guidance of the Master and of the court. Judgments of men naturally differ on any such question. The witnesses for the State were at least as competent to judge of values as were the witnesses for the railroad company. The fixing of a value greater than was warranted by the testimony of these witnesses certainly raises a doubt as to the correctness of the conclusion.

Without discussing the matter at any length, we desire to call the attention of the court, with reference to the question of value, to the affidavit made by the President of the Road before the State Tax Commission, which appears on pages 1066, 1068, of the Record (Vol. II). It was there declared that the sum of $9,600,000 was a fair valuation in 1912. As shown by the Record (page 1066) like affidavits were presented in the other years under investigation. Notwithstanding these sworn statements, however, plaintiff contended in this case, and doubtless will contend in this court, for a much greater valuation. It seems to us that the value thus declared by the Railroad Company to be a proper one for the purposes of taxation may well be taken into account. In the case of

San Diego Land and Town Co. vs. Jasper, 189 U. S. 439, 443,

it was said by Justice Holmes, speaking for this Court:

> "The valuation of property for the purposes of taxation may not be technical evidence in a court of law, yet it may be considered in coming to a decision whether the action of the supervisors was unfair, especially, if, as was testified, it was sworn to by the officers of the company."

In the case at bar, as in the water case, we have a sworn valuation, which should not have been disregarded by the Master, and which must be considered in fixing the value of this property.

In the absence of a definite finding by the trial court as to the value of the property used in the intrastate passenger business, we do not think it is necessary or expedient to take up in detail the specific property, the value of which is in dispute. To do so would necessarily involve an extended discussion and would consist largely of reference to the testimony in the record. This testimony speaks for itself. In the main it is clear-cut and specific. Furthermore, we believe that the determination of the questions above enumerated will be decisive of the case. If appellant's position with respect to any of the material propositions raised is correct, the conclusion must necessarily follow that the decision of the trial court was erroneous and that it should be reversed. We wish it to be understood, however, that there is no recession from the position taken by the defendants in the court below with respect to the conclusions as to value that were reached by the Master.

We now proceed to the consideration of the specific grounds of error enumerated above.

I.

For the purposes of this case the South Line should have been excluded in determining the value of plaintiff's property on the cost of reproduction less depreciation theory; and the expenses of maintaining and operating the same should likewise have been excluded from the total expense of maintenance and operation.

The plaintiff railroad company, in the proceeding before the Master, and before the Court, relied on the cost of reproduction new less depreciation theory for the valuation of its property. In doing this it proceeded on the assumption that if the road did not exist, it would be rebuilt exactly as it is, a wholly erroneous assumption insofar as the present case is concerned. In his opinion (Record Vol. 1 page 82), the trial court said:

> "It may well be doubted that if the plaintiff's railroad were now being constructed new two lines would be built paralleling each other from Marquette to Ishpeming."

There can be no question but that this conclusion was fully justified. Notwithstanding the fact, however, plaintiff based its case on the assumed right to include the

south line, and the attendant expenses of maintenance and operation, such line being valued in exactly the same manner as was the balance of the system.

It has been suggested that the consideration of the south line has a twofold aspect. On the one hand it touches the value of the property, but insofar as the determination of this case is concerned, it is of more vital importance because of the bearing on expenses.

If we are correct in our contention that the trial court should have required the plaintiff company to segregate the expense of maintenance and operation of this line, as well as to separate the property itself, it is apparent that the proofs introduced by plaintiff, and on which the decree appealed from was based, were improper and were lacking in requisite certainty. There is no exact proof as to the value of this line, the only fact introduced in evidence being that the Marquette, Houghton and Ontonagon (plaintiff's predecessor) paid for the line in 1884 a sum slightly in excess of $2,000,000. (Record Vol. II page 1072). The annual expense of upkeep including the wages of section men and other employes, the cost of ties and rail renewals, the maintenance of fences, the general care of the right of way and the track structure is wholly a matter of conjecture. That such annual expense during each of the years under consideration by the Court was material cannot be doubted. Had such expense been excluded from the aggregate expense of the system, plaintiff's showing, even on the theories and factors employed by it, would have failed to establish a prima facie case of confiscation.

As stated above, the south line was acquired by the predecessor of the plaintiff company for the purpose of

getting rid of injurious competition in the ore traffic. Quite possibly this was an expedient acquisition from a business standpoint. However, the traveling public of the State of Michigan cannot be required to underwrite an investment of this kind, nor may a State law be nullified because a railroad company for purely business reasons that have no connection whatever with the service to the public, or to the public welfare, finds it necessary to take over a competitor and to acquire the property used thereby.

It was not claimed in the Court below, and we do not understand that it will be claimed here, that two separate and distinct lines of railroad between Marquette and Ishpeming are, or at any time have been, necessary for the carrying on of plaintiff's business. It is true that a great deal of heavy ore traffic goes over the south line but insofar as the passenger business is concerned, there is absolutely no excuse for its existence, and a single road can easily handle the freight business, especially in view of the competition of the Lake Superior & Ishpeming. In any event, the expenses that are incurred by plaintiff in connection with the maintenance and operation of this line are not proper expenses to be considered in a case of this nature where the primary matter of concern is the passenger traffic within a single state.

It is a matter of fair inference that were it not for the ore business, the south line would have been abandoned long ago. No shadow of excuse would have existed for its continuance. Indeed, it is undoubtedly true that it never would have been built had it not been for the ore traffic. If it is now to be kept as a part of plaintiff's system, then the property it represents and the expense

of its upkeep must be charged to the traffic in which it is used and for which it was designed. We insist that the District Court erred in permitting the plaintiff to include this property and to include also its annual cost of upkeep and operation for the purpose of endeavoring to establish the insufficiency of a proposed intrastate passenger rate.

In a case involving alleged confiscation it is only the property devoted to the public service involved, and reasonably required for that service that may be taken into account. If a railroad company, or other public utility, is burdened with property that is not thus required in order that the public may be served, it cannot be permitted to charge rates that will support such added property. This Court has repeatedly declared that the rate to be charged by a common carrier must be fair not only to the carrier but to the public as well. It needs no argument to demonstrate that allowing a railroad company to charge a rate for transportation of passengers that will permit it to support property that is not necessary for the passenger business and which would never have been acquired therefor, is unjust to the travelling public. The principle declared by this court in *San Diego Land and Town Company vs. Jasper*, supra, seems to us to be controlling here. There the utility, the water plant, was constructed to take care of a much larger acreage than was really served. This Court declined to hold the rates fixed confiscatory even though a fair return upon the value of the entire plant was not received. It was declared that if necessary to avoid holding that the Fourteenth Amendment had been violated, the Court "should assume that only a proportionate part of the system was actually used and useful

within the meaning of the statute." This language suggests the exact situation in the case at bar. A part of the property only is reasonably required to be used for the plaintiff's business. The south line, we submit, cannot be regarded as a proper part of plaintiff's system for the purpose of the attack on the passenger fare law. The same principle was recognized in

Smyth v. Ames, 169 U. S. 466, where it was said:

> "It cannot, therefore, be admitted that a railroad corporation maintaining a highway under the authority of the State may fix its rates with a view solely to its own interests and ignore the rights of the public. But the rights of the public would be ignored if rates for the transportation of persons or property on a railroad are exacted without reference to the fair value of the property used for the public or the fair value of the services rendered but in order, simply, that the corporation may meet operating expenses, pay the interest on its obligations and declare a dividend to stockholders. If a railroad corporation has bonded its property for an amount that exceeds its fair value, or if its capitalization is largely fictitious, it may not impose upon the public the burden of such increased rates as may be required for the purpose of realizing profits upon such excessive valuation or fictitious capitalization; and the apparent value of the property and franchises used by the corporation, as represented by its stock, bonds and obligations, is not alone to be considered when determining the rates that may be reasonably charged. * * * The basis

of all calculation as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property used by it for the convenience of the public. And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by state, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property. What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth."

In the previous case of

Covington & Lexington Turnpike Road Co. vs. Sanford, 164 U. S. 578, the principle was laid down that:

"The utmost that any corporation operating a public highway can rightfully demand at the hands of the legislature, when exerting its general powers, is that it receive what under all the circumstances is such compensation for the use of its property as will be just both to it and to the public."

We repeat that the plaintiff company may not insist on the right to collect such passenger fares in its intrastate traffic as will be sufficient to support property not intended or in any way required for that traffic. Such rates fall within the inhibition of the principles declared in the foregoing cases. If a carrier cannot by increasing its bonded indebtedness or its capitalization assert the right to charge rates accordingly, then by the same process of reasoning it may not take such action by voluntarily acquiring property that is not reasonably useful. The authorities hereinafter cited in connection with the discussion of the Western division are also in point upon the principle of law here involved. We ask, therefore, that those cases may be considered in connection with the foregoing, and as further illustrating the position that the courts have taken.

II.

The intrastate passenger traffic should not be charged in this case with the losses occurring on the Western Division, nor should such division be valued on the cost of reproduction less depreciation theory. Plaintiff should have been required to segregate revenues and expenses on said division.

There are two matters of fact in connection with the western division that have a pertinent bearing: First, the division was constructed solely to take care of interstate business and particularly to connect plaintiff's system with the Canadian Pacific system at Duluth; Second, because of such purpose the road was located without reference to intrastate traffic, either present or prospective.

The testimony introduced before the Master and before the court conclusively shows that this division is handling interstate traffic in the main. Reference to the map (Exhibit A-1) cannot fail to give the impression even to the casual observer that it was built for such traffic. The local business is light due to the fact that the communities actually served are sparsely settled. All of the witnesses who were examined on this point agreed that the

traffic on the western division was lighter than on any other part of plaintiff's system, and that the interstate traffic greatly predominated. Plaintiff's witness Maney testified (Record Vol. I page 486) before the Master as follows:

> "West of Nestoria on main line of the western division our interstate business is the greatest. The intrastate business on that division is quite light due to lack of population—the local business is very light. I cannot give the relations between the inter and intra state business there. The inter business is much greater in my opinion."

To the same effect is the testimony of Thompson (Record Vol. II page 860):

> "I think that the principal element of the addition to cost of carriage of interstate passengers and intrastate passengers, both relatively to the passenger mileage, is to be found in the conditions on the western division of the road where the interstate business is much greater than the intrastate business and where the total of the passenger business is light and the expenses correspondingly large."

Other witnesses testified to the same effect; and it is also shown that the road in the first instance was of lighter construction than the balance of the system. (Record Vol. II page 598.) Prof. Adams of the University of Michigan (Record Vol. II pages 1134 and 1135) testified from an historical standpoint as to the reasons for the original construction of the line running west from Nestoria. From an examination of over four hundred

contemporary references Prof. Adams drew the conclusion that:

> "The line west of Nestoria as shown by the citation which I have before me was built for the purpose of connecting up a through system. It was not built for the local traffic. It was built to make a link between the eastern portion and certain railroads centering or terminating in Duluth or Minneapolis, and my interpretation of these readings is that it would not have been built had it not been for the desire to make a through east and west system."

It is also in evidence that the physical features of the country through which the western division extends made the original construction difficult (Record Vol. II page 939). A comparison of the intrastate and interstate passenger miles from Nestoria west to the State line is also significant. The figures for the years 1916 and 1917 are as follows:

Year	Interstate	Intrastate
1916	5,090,983	1,072,032
1917	4,154,501	1,324,074

The line from Nestoria west to the Michigan-Wisconsin boundary passes through country very similar to the country crossed by plaintiff's line in Wisconsin. Construction and operating problems are practically the same. It is a fair assumption that the cost of operation of the western division in Michigan bears approximately the same relation to revenue as such cost on the Wisconsin section bears to the revenue received there. According to the accountant for the plaintiff (Mr. Delf) the operating ratios for that part of plaintiff's system outside of Michigan were as follows: 1914, 96.78; 1915, 111.4; 1916, 89.87;

1917, 97.84. The corresponding ratios covering plaintiff's operations in Michigan for the same years as given by the same accountant were: 1914, 77.87; 1915, 76.39; 1916, 67.89; 1917, 71.54. If it be true, and there can be no question but that it is true, that the operations on the western division are practically the same as plaintiff's operations on that part of its system outside of the state, then it conclusively follows from the figures above given that if plaintiff is losing money in Michigan, the loss is caused by the light traffic and difficulties of operation over the one hundred and one miles of road from Nestoria to the state line.

The court below in his opinion expressed a doubt as to whether "the western division would be placed in its exact present location" if plaintiff's system were to be reproduced. We assume that reference was intended here to the fact that a number of towns in Michigan that might have been reached and served by this division were passed by thus emphasizing the fact that the builders of the road were absolutely disregarding the intrastate traffic. The testimony of the witness Payne, a civil engineer, who had formerly been in the employ of the plaintiff company as well as in the employ of certain of its predecessors, is highly instructive. He said: (Record Vol. II page 1102)

> "The plaintiff's road runs west through the Montreal Valley from three to five miles north of the Gogebic Iron Range and north of the towns of Bessemer, Ironwood, Hurley and a few other small locations. Further west Ashland lies about 11.5 miles away. If I were constructing a new line through that country, I should locate for the local business, of the Gogebic Iron Range, meaning particularly the freight business. The passenger busi-

ness would cut some figure also. There would be considerably more local traffic along a line so located in Michigan than along the line as now located."

The principle has been repeatedly laid down by this court and by inferior courts, that a railroad or a division of a railroad that is constructed primarily for a certain traffic must look to that traffic for its support. Stated specifically, and with particular reference to the facts in this case, a division that is built for interstate traffic cannot be permitted to burden the intra traffic for the purpose of showing that a legislative rate applicable to the entire system within the state is confiscatory as to such system. In the

Arkansas Rate Case, 168 Fed. 720, 732,

it was said:

"Another matter which is entitled to consideration is the fact which has been brought out at this hearing, that the St. Louis Iron Mountain & Southern Railway Company and the Chicago, Rock Island & Pacific Railway Company have, within the last few years, and since the establishment of the commission rates, constructed extensive branch lines through new and unsettled sections of the state; and these lines were constructed at great expense, owing to the fact that the greater part of these branches runs through swampy country, some of it subject to overflows, which necessitated high embankments; that these roads were built principally to serve as feeders for the main line, and at the same time enable these roads to obtain shorter lines for that part of its interstate traffic which merely passed through the state. These are

matters which must be taken into consideration in determining what would be proper net earnings on the investments. It would hardly be proper for the courts to say that such roads are entitled to as great a compensation on their investments from intrastate business as the ordinary road built for the accommodation of the intrastate as well as the interstate business. As is well known, some of the Pacific roads traverse the desert for hundreds of miles through a strip of territory where there is practically no intrastate business, either freight or passenger. Would it be proper, in such cases, to hold that the road should have the right to charge for its intrastate traffic in that section tariff rates high enough to enable it to earn a certain, fixed percentage on its investment? Would not, in such a case, the rates have to be so high as to be confiscatory of the property of the residents of that state? Must the public guarantee the railroads a certain income on their investment, regardless of the condition of the country traversed, or whether bad judgment was exercised in the selection of the route? We do not think so. New lines or branches to increase the business of the main line, or the exercise of bad judgment in the building of a railroad, are matters to be considered in determining what rates would be fair and just to the corporation as well as the public. That the railroads are entitled to reasonable profits on their investments, and the public to reasonable rates, or, to express it differently, that the rights of the public and railroad companies are reciprocal, is the correct rule of law."

Likewise, in

Southern Pacific vs. Bartine, 170 Fed. 725,

it was stated that:

> "It does not necessarily follow that a schedule of maximum rates fixed by law is confiscatory because it fails to yield a reasonable return on the investment, above taxes, operating expense, and interest on the indebtedness. The rates must be reasonable to the company, but they must, in any event, be reasonable to the public. If a railroad is built into a new, sparsely settled territory with a view of serving a large future population and developing business, the constitution does not require the few people and the small business of the present time to pay rates which will yield an income equal to the full return to be gathered when the country is populated and business developed to the full capacity of the road. *Beale & Wyman R. R. Rate Reg.,* p. 343, 344, 462; *Capital City Gaslight Co. vs. Des Moines* (C. C.) 72 Fed. 829, 844; *Boise City I. & L. Co. vs. Clark,* 131 Fed. 415, 65 C. C. A. 399; *Water Dist. vs. Water Co.,* 99 Me. 371, 376, 69 Atl. 537."

These cases both follow the principle declared by this Court in

Smyth vs. Ames, 169 U. S. 466, 541,

where it was said:

> "Nor can the carrier justify unreasonably high rates on domestic business upon the ground that it will be able only in that way to meet losses on its interstate business. So far as rates of transportation are concerned, domestic business should not be made to bear the losses on interstate business,

nor the latter the losses on domestic business. It is only rates for the transportation of persons and property between points within the state that the state can prescribe; and when it undertakes to prescribe rates not to be exceeded by the carrier, it must do so with reference exclusively to what is just and reasonable, as between the carrier and the public, in respect of domestic business. The argument that a railroad line is an entirety; that its income goes into, and its expenses are provided for out of, a common fund; and that its capitalization is on its entire line, within and without the state can have no application where the state is without authority over rates on the entire line, and can only deal with local rates and make such regulations as are necessary to give just compensation on local business.

In the earlier case of

Reagan vs. Farmers Loan & Trust Co., 154 U. S. 412,

Justice Brewer, speaking for this court, had said in the concluding part of the opinion:

"It is unnecessary to decide, and we do not wish it to be understood as laying down as an absolute rule, that in every case a failure to produce some profit to those who have invested their money in the building of a road is conclusive that the tariff is unjust and unreasonable. And yet justice demands that everyone should receive some compensation for the use of his money, or property, if it be possible without prejudice to the rights of others. There may be circumstances that would justify such a tariff; there may have been extravagance and needless expenditure of money; there

may be waste in the management of the road; enormous salaries; unjust discrimination as between individual shippers, resulting in general loss. The construction may have been at a time when material and labor were at the highest price, so that the actual cost far exceeds the present value. The road may have been unwisely built, in localities where there is not sufficient business to sustain a road. Doubtless, too, there are many other matters, affecting the rights of the community in which the road is built, as well as the rights of those who have built the road."

We respectfully submit that under the doctrine of these cases that it was improper to value the western division on the cost of reproduction theory, and it was error on the part of the district court to refuse to require that the plaintiff should segregate its revenues and expenses on that division. We repeat that on this record, if there has been any failure on the part of the plaintiff to realize a sufficient return on that portion of its property devoted to the intrastate passenger business, such failure has been brought about by the loss occurring on this part of its system. It is most unfair, however, to charge the intrastate traffic with such loss for the purpose of nullifying the state law. It must have been foreseen by the plaintiff in the construction of the line west that intrastate conditions would not justify it, and that it must depend for its success on interstate traffic. If it was desired to have a through system (Record Vol. II, page 1135) then reliance must be placed on through traffic. Certainly residents of this state traveling on the western division, or on the Houghton division of plaintiff's system, ought not to be penalized because the system had been extended to include an interstate line.

III.

The expenses of the operation of the Mineral Range should have been excluded.

Previous to the 1st of October, 1912, the plaintiff company operated its trains over the line of the Mineral Range from Houghton to Calumet on the basis of a rental of 40 cents per train mile, plaintiff receiving the revenues. On or about the date mentioned, the contract was changed and from that time during the years under investigation the fares received were paid to the Mineral Range but plaintiff continued to operate the trains. (Record Vol. II, page 607.) The result has been a loss to the plaintiff company in each year, approximating annually $20,000. In 1917, when such loss was the greatest, a deficit of nearly $22,000 was suffered.

We have hereinbefore called attention to the fact that the bill of complaint made no reference to the Mineral Range Railroad. Bearing in mind that this is a case wherein the primary question is whether the property of the plaintiff company would have been confiscated as a result of the operation of the statute. It seems to us that there is no escape from the conclusion that the op-

eration of another independent railroad should have been excluded. It was plaintiff's property that was claimed in the bill to be threatened. It was plaintiff's road that was to be so injuriously affected that a reasonable return on that portion of the property devoted to the intrastate passenger business could not be earned under the reduced rate. Notwithstanding this fact, however, plaintiff insisted on bringing in the Mineral Range operation and was permitted so to do by the Master and by the court. In the case of a legislative proceeding by a commission, or other body authorized to fix rates, this might have been allowable; but in a judical inquiry to determine the constitutionality of a State law, it has no place. If the Mineral Range were a part of plaintiff's system, then, of course, the revenues received from the transportation of passengers over it would accrue to the plaintiff company, thus increasing its total receipts from its passenger business.

The Vice-President and General Manager of the plaintiff company testified (Record Vol. II page 1159), that the Mineral Range had been forced to discontinue its passenger trains because of the building of an interurban line from Houghton to Calumet which took care of the local traffic. He also said that:

> "A large proportion of the passengers Calumet to Houghton are through to other parts of the system; the local people use the traction line."

Thus it seems that plaintiff took over the Mineral Range in order to provide for interstate traffic, primarily the traffic to Chicago. It is clear that the local business, that is, the intrastate business did not justify such action. However, the making of this contract under

which the Mineral Range has been operated was purely a voluntary proposition and under no aspect of the case can it be made a burden on the intrastate traffic, in a case of this character. In

San Diego Land Company vs. National City, 174 U. S. 739, 758, a question arose indentical in principle with the proposition under consideration here. The nature of said question and the conclusion of this court with reference to it are indicated in the following quotation from the opinion:

> "One of the points in dispute involves the question whether the losses to the appellant arising from the distribution of water to consumers *outside of the city* are to be considered in fixing the rates for consumers within the city. In our judgment the Circuit Court properly held that the defendant city was not required to adjust rates for water furnished to it and to its inhabitants so as to compensate the plaintiff for any such losses. This is so clear that we deem it unnecessary to do more than to state the conclusion reached by us on this point."

The other cases cited in the preceding subdivision of this brief are also in point here. The general principle is that a common carrier may not nullify a State rate law by burdening itself with unnecessary property or voluntary losses. Having voluntarily assumed the operation of the Mineral Range, we submit that it must look to that operation for its return. It is an independent operation that must stand on its own basis.

IV.

The sleeper and diner businesses should have been segregated from the passenger business and each should have been assigned its proper proportion of the property and expenses as an auxiliary or outside operation.

The statutory provisions of the state with reference to the operation of sleepers and diners are found in Act 38 of the Public Acts of 1875 (8348-8349 Compiled Laws of 1915). Said act is short, and for the convenience of the court we insert it here:

> "An Act relative to the use of sleeping, parlor and chair cars upon the railroads of this state.
>
> Section 1. It shall be lawful for any railroad company operating any railroad within this state to construct or use for the transportation of passengers, sleeping cars, parlor cars, or chair cars, for the use of such passengers as may desire to use the same, and such company may make such reasonable rules and regulations concerning the use of these as such company may think proper, and may charge a reasonable compensation for such use in addition to the regular passenger fares allowed by law.

Sec. 2. Nothing herein contained shall release any such railroad company from its obligations to furnish first-class passenger cars for the use of the public for the regular passenger fares now fixed by law."

It will be noted that this statute does not require any railroad company to operate a sleeper or diner. It is wholly permissive in its terms, and the second section shows clearly the legislative intention that the furnishing of such facilities should be regarded as a service separate and apart from the regular passenger service. The requirement that sufficient first-class passenger coaches should be furnished for the use of the public at the prescribed passenger rates can be taken in no other way. Therefore, in electing to add sleepers and diners to its trains, thus taking advantage of the terms extended by the statute, plaintiff did a purely voluntary thing.

It is our contention that an added business of this nature must stand upon its own basis. It must be charged with its proper proportion of the property, and (which is of even greater importance) it must bear its proper proportion of the expense. Obviously, if such is not the case, then the regular passenger traffic must be burdened with expense arising from an outside operation that does not prove to be remunerative. In other words, the passenger who rides in the day coach must pay a part of the cost of the extra comfort and facilities furnished to the passenger who rides in the sleeper and parlor car and eats his meals in the diner.

For the reasons set forth in his opinion (Record pages 79, 81), the District Court declined to treat the sleeper and diner businesses as outside operations, declaring insubstance that they must be regarded as an integral

part of the passenger business. In this we insist that the court was in error. A state law prescribing ordinary passenger rates cannot be set aside because of a loss arising out of a purely voluntary business that the carrier has added. That there is a loss in this case from both sleepers and diners cannot be doubted. Plaintiff's accountant, Mr. Delf, admitted (Record Vol. I page 352) that there was a loss in the dining car service for each of the years 1910, 1911 and 1912. It is not denied that a similar condition existed in other years. Exhibits of Mr. Hillman and of Mr. Parker (Volumes IV and V of the Record) clearly establish this fact as to each year under investigation and that burden may not be permitted to fall on the traffic to which the statute assailed has sole reference. The principle laid down by this court in the case of

> *Northern Pacific vs. North Dakota*, 236 U. S. 585, and *Norfolk & Western Ry. Co. vs. Conley*, 236 U. S. 605,

seems to us to be conclusive. In the former case it was said:

> "We entertain no doubt that, in determining the cost of the transportation of a particular commodity, all the outlays which pertain to it must be considered. We find no basis for distinguishing in this respect between the so-called 'out-of-pocket costs,' or 'actual' expenses, and other outlays which are none the less actually made because they are applicable to all traffic, instead of being exclusively incurred in the traffic in question. Illustrations are found in outlays for maintenance of way and structures, general expenses and taxes. It is not a sufficient reason for excluding such, or other, ex-

penses to say that they would still have been incurred had the particular commodity not been transported. That commodity has been transported; the common carrier is under a duty to carry, and the expenses of its business at a particular time are attributable to what it does carry. The state cannot estimate the cost of carrying coal by throwing the expense incident to the maintenance of the roadbed, and the general expenses, upon the carriage of wheat; or the cost of carrying wheat by throwing the burden of the upkeep of the property upon coal and other commodities. This, of course, does not mean that all commodities are to be treated as carried at the same rate of expense. The outlays that exclusively pertain to a given class of traffic must be assigned to that class, and the other expenses must be fairly apportioned. It may be difficult to make such an apportionment, but when conclusions are based on cost, the entire cost must be taken into account."

In the West Virginia case, supra, this court referred to the fact that the items of mail, express, excess baggage, etc., were included in the passenger business and that the state had presented no calculations as to "the net return upon these items separately considered." Read in conjunction with what was said by the court in the North Dakota case, we understand this to mean that such showing should have been made for the purpose of establishing definitely the net return on the intrastate passenger business.

We wish to call attention also in this connection to the case of *San Diego Land Co. vs. National City*, 174 U. S. 739, 758, referred to in the preceding subdivision of this

brief. It was there held that a city in prescribing rates to be charged by a public utility for water furnished within the corporate limits was not required to take into account the operations of the utility outside of the city. By the same process of reasoning, the legislature of the State of Michigan in prescribing a rate for the transportation of intrastate passengers is not bound to consider outside operations or to make provision for the losses that may result therefrom.

The language used by Judge Trieber in his opinion in the

Arkansas Rate Case, 187 Fed. 290,

is particularly in point here. There, as here, facilities were furnished at a loss to the carrier. We quote from the opinion:

> "While there can be no doubt that the company has a right, insofar as it alone is concerned, to give away any of its property, in a controversy of this nature, involving the claim that the revenues derived from its business in the state, under the tariffs fixed by the state, is so small as to make them confiscatory, it cannot be permitted to do so, and should be charged with the reasonable value of its property, which, by its permission, is used by others, not for the benefit of the railroad, but for their individual profit. If by charging the value of these privileges, or any other matters which the law permits the carrier to charge for, the earnings on the rates fixed by the state are shown to be compensatory, it has no right to complain, and insist upon higher rates to enable it to act generously toward favorites. Generosity cannot be practiced at the cost of others. No evidence has been offered

by the company to explain why these valuable privileges are given away. No consideration of any kind is shown to have passed to the company therefor. The evidence shows that the expense of repairs and preserving the premises in proper condition is also borne by the railroad company. The finding must therefore be that this generosity ought not to be charged to the people of the state, but the loss must be borne by the railway company. Neither the statutes nor orders of the commission require it to give this or any of its other property away. It had a right, and it was its duty, so far as its claim in this cause is affected thereby, to charge and collect the fair value thereof. *Knoxville vs. Water Co.*, 218 U. S. 1, 12, 29 Sup. Ct. 148, 53 L. Ed. 371."

To the same effect was the opinion of Judge Shelby in the case of

Louisville and Nashville R. R. vs. Railroad Commission, 208 Fed. 35,

where it was said:

"It might be true that the plaintiff would fail to secure an adequate return on all of its property devoted to the public intrastate service, and yet the failure might not be due to the passenger rate. If the return were insufficient on the whole property, the passenger rate would not be made invalid unless it materially contributed to cause the insufficiency. It follows that to attack the order successfully, the insufficiency of the return must be shown, and also that the order as to passenger rates is at fault in causing the insufficiency."

The situation suggested by Judge Shelby's language is exactly that which obtains in the case at bar. If there would have been a loss on plaintiff's intrastate business, or rather a failure to earn a reasonable and fair return on the property devoted to that business, during the years under consideration if the two cent rate had been in effect, the burden rests on the plaintiff of establishing that such rate would have been responsible for the condition. But such showing necessarily involves, under the doctrine of the foregoing cases, the setting aside of the outside operations and of the property and expenses pertaining thereto. If this had been done by the district court in his computations (Record Vol. I, pages 86-88) an entirely different return on the intrastate passenger business standing alone would have been shown.

We wish to challenge the attention of the court at this point to the results obtained by setting out the expenses properly chargeable against the outside operations, that is, the sleepers, diners, mail and express. In preparing this tabulation the amounts used by the trial court as representing the Michigan passenger property and income are employed. No property is, however, assigned to the outside operations except the actual cars employed therein and a proportion of working capital and of stores and supplies. Assignments have been made to interstate and intrastate in the same manner as by the court. Bold-faced type has been used to represent deficits. For the purposes of comparison, we have assumed the correctness of the method used by the court for the division of the common property and of the common expense between the freight and passenger services.

	Total Michigan Passenger	Mineral Range	D.S.S.& A. Passenger	Mail & Express	Sleepers	Diners	Passengers and Baggage Total	Intra.	Inter.
1912									
Value of Passenger Property....	$2,569,461	.....	$2,569,461	$27,725	$56,646	$67,122	$2,417,968	$1,538,553	$879,415
Net Income under Two-cent Rate	131,893	.....	131,893	39,792	55,016	29,805	176,722	127,293	49,429
Rate of return.....	5.14		5.14				7.31	8.27	5.62
1913									
Value of Passenger Property....	$2,523,159	.....	$2,523,159	$27,725	$56,653	$67,116	$2,371,665	$1,555,338	$816,327
Net Income under Two-cent Rate	105,108	.....	105,108	34,036	57,734	56,454	185,260	130,591	54,669
Rate of Return.....	4.17		4.17				7.81	8.40	6.70
1914									
Value of Passenger Property....	$2,788,674	.....	$2,788,674	$28,432	$56,653	$67,011	$2,636,668	$1,705,660	$931,008
Net Income under Two-cent rate	128,435	17,807	146,242	20,358	84,761	59,816	270,461	181,661	88,820
Rate of Return.....	4.57		5.24				10.26	10.65	9.54
1915									
Value of Passenger Property....	$3,006,345	.....	$3,006,345	$29,799	$56,558	$67,011	$2,852,977	$2,005,358	$847,619
Net Income under Two-cent Rate	23,769	19,097	42,866	23,975	67,732	53,021	139,644	101,780	37,864
Rate of Return.....	0.79		1.42				4.90	5.07	4.47
1916									
Value of Passenger Property....	$2,727,368	.....	$2,727,368	$29,484	$56,915	$67,427	$2,573,542	$1,822,325	$751,217
Net Income under Two-cent Rate	76,437	18,832	95,269	34,378	56,236	47,363	164,490	118,220	46,270
Rate of Return.....	2.80		3.49				6.39	6.49	6.16
1917									
Value of Passenger Property....	$2,589,175	.....	$2,589,175	$30,429	$57,596	$68,250	$2,432,900	$1,719,330	$713,570
Net Income under Two-cent Rate	66,513	21,899	88,412	13,288	71,734	54,546	236,551	156,068	80,483
Rate of Return.....	2.57		3.41				9.73	9.08	11.28

In the court below in their computations both sides excluded the mail and express and the court did likewise in his tabulation (except as to the year 1917 to which the court refers in his opinion). We think that this was correct, and that for the same reasons that led to such exclusion by the plaintiff the sleeper and diner businesses should likewise have been excluded. In no other way can the true effect of the operation of the state law be determined.

It is shown by the record (Vol. II, page 1147) that the sleepers and diners operated by the plaintiff were so operated primarily for the interstate passenger traffic. This was particularly the case with reference to the heavy Pullman cars of the Northwestern and of the St. Paul carried over the line of the plaintiff from the junction points on those roads to Houghton and thence over the line of the Mineral Range to Calumet. Upon this particular operation we direct the court's attention to the testimony of plaintiff's general manager, Mr. Walker (Record Vol. II, pages 1158, 1159). It is shown also that the percentage of the interstate passengers using these facilities is much higher than is the corresponding percentage of intrastate passengers. For the year 1917 48.44% of the interstate passenger miles were made in sleepers, while the corresponding percentage on the intrastate side is only 8.81% (Record Vol. II, page 1071). These figures in themselves indicate that the loss occurring in these outside operations should be charged mainly against the interstate passenger traffic. However, the trial court refused to make any modification whatever in this respect (Record Vol. I, pages 80, 81). If it is consistent to divide passenger expense between interstate and intrastate on the basis of the passenger miles in each traffic (as both sides did on the trial and as the court has

done in his computations), then we submit that the expense of the sleepers, parlor cars, and dining cars should be apportioned in the same manner, namely, on the basis of the interstate and intrastate passenger miles traveled in such cars. The results obtained by applying such method of division are shown in defendant's exhibits Nos. 337 and 338.

It was also urged by defendants in the court below, as an alternative proposition that if the outside operations are not to be charged with their full proportion of the property and expenses that they should at least bear all of the additional expense incurred by them over and above the so-called "constant costs," that is, the cost that would be incurred by the regular passenger traffic if these operations were eliminated. This matter was gone into at some length by defendant's accountants, Mr. Parker and Mr. Hillman, and we call attention to their exhibits indicating the results. (Record Vol. II, page 1155). For the convenience of the court, we insert the following computation, which is merely a modification of the preceding computation obtained by charging to the regular passenger business the so-called constant costs, thus leaving the sleeper and diner business to stand merely the additional expense that they have caused:

	Total Michigan Passenger	Mineral Range	D.S.S.& A. Passenger	Mail & Express	Sleepers	Diners	Passengers and Baggage Total	Intra.	Inter.
1912									
Value of Passenger Property	$2,569,461	.....	$2,569,461	$27,725	$56,646	$67,122	$2,417,968	$1,538,553	$879,415
Net Income under Two-cent rate	131,893	.....	131,893	19,423	95,182	43,160	250,512	174,437	76,375
Rate of Return	5.14		5.14				10.37	11.34	8.69
1913									
Value of Passenger Property	$2,523,159	.....	$2,523,159	$27,725	$56,653	$67,116	$2,371,665	$1,555,338	$816,327
Net Income under Two-cent Rate	105,108	.....	105,108	11,453	98,481	23,610	275,746	189,932	85,814
Rate of Return	4.17		4.17				11.63	12.21	10.51
1914									
Value of Passenger Property	$2,788,674	.....	$2,788,674	$28,432	$56,563	$67,011	$2,636,668	$1,705,660	$931,008
Net Income under Two-cent Rate	128,435	17,807	146,242	5,466	134,130	85,317	371,145	246,793	124,352
Rate of Return	4.57		5.24				14.09	14.47	13.36
1915									
Value of Passenger Property	$3,006,345	.....	$3,006,345	$29,799	$56,558	$67,011	$2,852,977	$2,005,358	$847,619
Net Income under Two-cent Rate	23,769	19,097	42,866	1,769	114,480	77,879	237,004	170,214	66,790
Rate of Return	0.79		1.42				8.31	8.49	7.88
1916									
Value of Passenger Property	$2,727,368	.....	$2,727,368	$29,484	$56,915	$67,427	$2,573,542	$1,822,325	$751,217
Net Income under Two-cent Rate	76,437	18,832	95,269	6,249	106,809	74,039	269,868	192,838	77,030
Rate of Return	2.80		3.49				10.48	10.58	10.24
1917									
Value of Passenger Property	$2,589,175	.....	$2,589,175	$30,429	$57,596	$68,250	$2,432,900	$1,719,330	$713,570
Net Income under Two-cent Rate	66,513	21,899	88,412	14,961	121,758	78,794	338,073	227,814	110,259
Rate of Return	2.57		3.41				13.89	13.25	15.45

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Had defendant's contentions as to the treatment of the outside operations been accepted by the Court, the conclusion must necessarily have followed that the rate prescribed by the statute was sufficient as to each of the years under investigation. The result reached by the Court was based on a calculation in which "expense voluntarily assumed by the plaintiff was charged against the regular passenger business." In other words, the district court determined that the state law should be set aside, not because of an anticipated loss arising in the particular traffic directly affected by that law, but rather because the plaintiff has deemed it good business policy to burden its operations with the sleeper and diner business for the accommodation of its interstate passengers and of connecting carriers.

V.

The District Court erred in the use of improper factors for the division of common property and common expenses, and particularly in refusing to accept the method contended for by defendants.

Insofar as it was possible so to do the accountants for the state and for the plaintiff allocated to each branch of the service the property and the expenses that could be directly so placed or charged. A large proportion of the property, however, was found to be in common use and it follows logically that a large proportion of the expense, particularly the expense incurred in the maintenance of ways and structures, must be regarded as common expense to be divided between the freight and passenger service and between interstate and intrastate traffic.

In the ordinary rate case the selection of proper factors for the division of common property and of common expense is always a matter of contention. Particularly in a passenger rate case, such as is now before the Court, the use of factors or ratios that will throw too great a proportion of the property, or the expense, to the passen-

ger traffic, is manifestly unfair. This Court laid down the rule in the

Minnesota Rate Case, 230 U. S. 352,

that "comparable use units" must be found for the purpose of making necessary divisions. The difficulty arises, however, in each case of finding such units that can be applied under the particular facts so as to do absolute justice to both the freight and passenger traffic.

In this case, as in other cases, the same factors are advanced for the division of the common expense as for the division of common property. That such double use is permissible has been, in effect, assumed by both sides. Any improper factor that is used has, therefore, a more vital bearing than it would have if limited to a single purpose. If in the instant case the factors or ratios relied on by the plaintiff and those referred to and used by the court are not the correct factors or ratios, it necessarily follows that plaintiff failed to make out its case and that the decree of the court cannot be sustained.

As above suggested, the main item of common property and common expenses is found in the so-called "Way and Structures" group. The right of way is acquired, the roadway built, the track structure constructed, the fences maintained, etc., for the use of both the freight and passenger traffic, and by far the greater part of the stations of the plaintiff company accommodate both branches of the service. For the division of such property and the expense of its maintenance, the plaintiff in this case relied on the so-called "Modified Revenue Train Mile Theory," the modification being made in order to take into account the switching movements in the two services. The district court was apparently not impressed with this theory

for he declined to accept it, using instead for the purposes of his computations the method of dividing the common property and the common expenses on the basis of certain transportation expenses directly allocated to each branch of the traffic. It should be noted in passing that there is absolutely no testimony of any kind in this regard to support the use of the latter theory, or method of division. Plaintiff did not rely on it, choosing rather to rest its case on an entirely different theory.

The revenue train mile theory, the basis of the factor relied on by the plaintiff, was, for some time immediately prior to the institution of this case, relied on by railroad companies attacking passenger rate laws. In the last few years it has fallen into disrepute, its infirmities being patent. In the final presentation of its case, the railroad company recognized the basic unsoundness of the theory by modifying the ratio. Such modification was, however, arbitrary, being based on an assumed switching mileage on common tracks (Record Vol. II page 1047).

Courts have repeatedly declined to sanction the revenue train mile as a proper and comparable use unit for the division of either common property or common expenses. Its primary defect lies in the fact that the ratio derived from such theory bears no relation to the use of the property or to the value of the use. A short passenger train, consisting of a locomotive, tender and three or four coaches, is made the equivalent of a heavy ore train pulled by a large heavy type of locomotive, and consisting of twenty or more heavily loaded cars. Since the greater part of the common property is in the Ways and Structures group, let us consider the relative use by such trains of the tract structure. Certainly, there is no comparison between the stress or wear upon the track in the two

cases. It may be argued that the higher speed of the passenger train offsets the greater weight of the freight and ore trains. In the case of a road operating at a very high rate of speed, like, for example, the New York Central, on certain parts of its system, there may be some plausibility to this argument, but in the case at bar we have no such situation. There are no fast passenger trains.

The theory also ignores the wear upon the various elements of the track structure caused by the weather. None of plaintiff's witnesses claim the factor used to be more than an approximation (Record Vol. I, page 372 and 396). That the ordinary freight train damages the track, and hence requires a greater expense for upkeep per mile than does the ordinary passenger train over the lines of the plaintiff's road, seems apparent. Not only is there a greater weight and a greater number of cars in the one instance, but the difference in construction and type of equipment is material. The flat spots permitted on the wheels of freight cars strike a blow that is detrimental to the structure and sets up a vibration, tending towards the destruction of the various elements of the track. The experimental tests to which the witness, Williams, testified (Record Vol. II pages 1110 and following) are significant in this respect. These tests demonstrated mathematically that the freight traffic causes by far the greater stress in the track structure and hence results in the greater wear.

Attention has heretofore been called to the fact that the district court did not approve of plaintiff's theory of division. In view of this fact it is, we believe, unnecessary to give it any extended discussion or analysis. The

testimony of plaintiff's own witnesses is sufficient to refute it. The witness Young said (Record Vol. I, page 282):

> "I have never testified to the propriety of the revenue train mileage basis for division of common expenses between passenger and freight before; at best that is an approximation. I do not attempt to say that the division when made states the real expense caused by the passenger or freight service."

The witness Lewis (Record Vol. II, page 755) declared that the use of the method was a matter of judgment, thus in effect admitting the absence of a legitimate foundation for it.

After expressly declaring that the method relied on by plaintiff is not a proper one, the trial court in his computations (Record Vol I, page 85) employed ratios obtained by dividing the common property and the common expenses on the basis of certain allocated expenses in the transportation group. Apparently this was done for the reason that this court in

Rowland vs. Boyle, 244 U. S. 106,

did not disapprove of such method of division. We do not understand, however, from an examination of the opinion in that case that this court intended to sanction the method as one applicable in all cases or as designed to produce fair and accurate results. Obviously, it is in the nature of an approximation. It perhaps may be employed in a case that is reasonably clear and free from uncertainties. But in the case at bar we submit that it cannot be accepted. The method in question had been used previously to the decision of the Boyle case by the Interstate Commerce Commission in the

Western Passenger Fares case, 37 I. C. C. Rep. 1.

The matter before the Commission there, however, was the legislative problem of fixing rates rather than the determination as to whether a rate established was confiscatory. The Commission seems to have followed this method for the reason that less strenuous objections were offered to it than to other theories advanced. On the other hand, it appears from the opinion of the Commission (page 19 of the same) that but little testimony was offered to support such basis. Apparently the different parties to the case did not consider it seriously. The Commission further recognized the latent defects (page 23) and declared that the use of the method in the case then under consideration "must not be regarded as conclusive on our part of the method that should ultimately be used for the division of maintenance, of way and structures expenses between passenger and freight." It was found necessary also to modify it because of operations in the yards and such modification appears to have been based on the assumption that 10% of the maintenance of way and structures expenses were incurred in the upkeep of the yards. The trial court in his opinion likewise made a modification (Record Vol. I, page 87) because of the yard expense accounts. The results appear on page 88 of the Record, and show a return on the basis employed of more than 6% on the intrastate passenger business in the year 1912, but a materially lesser rate in other years. The court expressly states that this modification is made with "patent inconsistency," thus apparently recognizing that a ratio that has to be modified by the introduction of arbitrary factors is not at all a natural method of division.

It is unquestionably true that the use of fuel, of lubricants, etc. depends to a very large extent upon the employes who are using the same. The amount of fuel used

on the different divisions of plaintiff's system must vary largely per train mile and also per ton mile. For example, a train going from Marquette to Houghton encounters some severe grades. In climbing these grades a large amount of fuel and a corresponding supply of lubricants are required. In reversing its direction, however, the grades that retarded speed and called for extra expenditure of labor and of fuel expedite the progress of the train and minimize both fuel and labor. Can it be said that the use made by the train in going on one direction is greater than the use made by the same train in making the return trip? Patently not. Following out the same line of reasoning, the run in one direction may consume a longer time than the corresponding run in the other direction because of gradient conditions. The wages of the train men vary accordingly; but is the use greater? It seems to us that the method is manifestly unfair, also in that the wages of the trainmen and the engine men in the two classes of service bear no relation to the other expenses, nor to the common property. It does not appear in this case that the same scale of pay is maintained for all such employes, for passenger engineers, firemen and conductors are paid more per hour than are the corresponding employes on the freight side. This method unduly burdens the passenger. We respectfully submit that, *insofar as this case is concerned,* there is absolutely no foundation in the record for the use of this method. There is no showing that the direct allocations are in any way indicative of the relative use of the common property or of the proper proportions of the common expense.

Without reference to the propriety of the use of the method employed by the Interstate Commerce Commission in the Western Passenger Fares case, and followed by the trial court in this case for the purpose of deter-

mining what are reasonable rates on other railroads, there are certain features peculiar to the Duluth, South Shore & Atlantic that render its application to that system manifestly improper. We have reference particularly to the unusually high mileage of exclusive freight track. We have hereinbefore, in discussing plaintiff's system, set out the mileage of main line track sidings, etc., (see page 7 of this brief). The total mileage of all tracks within the State for the year 1917 was 628.71 miles. Of this 456.20 miles was in common use; 170.41 was exclusively freight, and 2.10 exclusively passenger (Record Vol. V, page 524). In plaintiff's accounts as produced before the Master and before the court, the cost of maintenance of way and structures on the exclusive track was not segregated. Much of this track engaged in the freight service is constructed for the carrying of ore trains and must, therefore be reasonably maintained. Twelve miles of main line is exclusively freight. Any method of division that does not take into account the unusually high proportion of exclusive freight track cannot be employed in this case without unjustly burdening the passenger traffic. The Master in his report (Record Vol. III, page 496), after dividing the total expense of the maintenance of way and structures, made a modification by deducting from the proportion of the income assigned to passenger the sum of $21,664.34. As appears from the Master's tabulation certain of the accounts in the group were divided on the basis of 37.70% to the passenger, while others assigned 42.36% to passenger, the average percentage used being slightly in excess of 40%. The sum deducted, therefore, represents approximately 40% of what the Master considered to be the cost of maintenance of ways and structures on the exclusive freight track for the year 1912. In other words, such expense was determined by

him to be in excess of $50,000. A similar adjustment was made by the Master for the year 1913 (Record Vol. III, page 500).

The accountants for the State, Mr. Hillman and Mr. Parker, made a careful and detailed examination of the records of the Railroad Company for the purpose of determining, if possible, the relative cost of maintenance of spurs, sidings, etc., as compared with main line track. The nature of the adjustment arrived at and the method pursued in the investigation is set forth in the testimony of Mr. Hillman (Rec. Vol. II, page 1137) as follows:

> "As it costs more per mile to maintain main track than sidetrack, the question became the proportion between the two. We adjusted the mileage by treating the main track as two and the sidetrack as one, on the basis that it costs $2.00 to maintain a main track as against $1.00 for a sidetrack. To be liberal, we used this ratio, though our investigations indicated $1.50 per main track mile to $1.00 per sidetrack mile. In my investigations to determine this ratio, I found the road divided into sections, each in charge of a gang. I assigned the actual expenses of maintenance incurred on each section to the section; I then went over the blueprints of sections and took off the percentage of side and main tracks on each section; I then classified the sections, combining all those having 95 to 100% main track, then those having 90 to 95% main track, then those having 80 to 90% main track, and so on, classifying the sections until I came to the other end, where there was less than 10% main track or the bulk of the work was on sidetracks. This gave a series of equations showing how the expenses would be affected by the admix-

ture of sidetrack with main track or main track with sidetrack, as my sections were scattered all over the road and represented all conditions of the traffic, because the sections having these percentages were not contiguous; they were scattered. I then equated the track and worked out the percentage which would be indicated by the admixture of the different classes of track. The highest percentage that I could obtain by any combination in the whole series was 172%, indicating that for every dollar expended on sidetrack per mile there would be $1.72 on main track. When we combined the results for the four years, the combination of all our percentages and equations gave us $1.49 per main track mile, against $1.00 per sidetrack mile. These figures are derived from the actual operations of company and their actual book charges."

As stated by the witness, the accountants for the state made the adjustment on the basis that it costs twice as much to maintain main track as to maintain sidetracks. In view of the actual figures disclosed by the investigation, this was more than fair to the freight traffic. The resultant figures obtained from this adjustment are shown in Mr. Parker's Exhibit (Record Vol. V, page 524). The equated mileage of common track for the year 1917 comprised 82.52% of the total; the exclusive freight track 17.28%; and the exclusive passenger track .20%. In other words, over 17% of the total expense of maintenance of way and structures was incurred on exclusive freight traffic. Before the common expense can be divided this freight expense must be set out. Likewise, the very small percent of exclusive passenger expense must be separated. The accountants for the state in their

computations did this, thus presenting the only showing in the case that can be said to rest on any sound or logical basis.

That some adjustment must be made of the character worked out by the state's accountants is clearly shown by the record. Witnesses for the plaintiff conceded it. Prof. Riggs, who was the appellant's leading witness before the Master, spoke on the subject several times (Record Vol. 1, pages 165, 166, 174, 207, 209, 210, 212). On page 210 of the record he said:

> "I think, in general, it is fair to say that on any secondary track the maintenance per mile is less than main line track. The practice of many railroads is to consider 2 or 2.5 miles of secondary track or siding equivalent to a mile of main line in arriving at an average figure per mile on maintenance, and some of these tracks will unquestionably have very little money spent upon them annually for maitenance while others will have a very considerable amount. I would expect to find much more money spent per mile upon such a line as Palmer Branch than upon Deranson lumber spur or other lumber spurs on west end.
>
> On such lines as Palmer Branch there are a large number of movements and they are in the sense of mine movements over them. There is considerable operation on those tracks and there might be more frequent movement and more tonnage over them than on some parts of the main line; e. g., parts of the line west of Nestoria; I don't think that would apply to the whole line. Other parts of the line have nothing over them but regular trains, while the mine spurs have a large movement of ore from the lines to the main line."

Likewise, plaintiff's witness Young testified (Record Vol. 1, page 290):

> "I did not have in mind making this division, that these branches, such as traffic spurs, industry tracks, etc., over which no train mileage is made, were included in this maintenance. I thought they were and that they ought to be set apart to freight."

Of special significance and tending to squarely support the adjustment made by Mr. Hillman and Mr. Parker is the testimony of plaintiff's accountant, Mr. Delf (Record Vol. 1, page 420). Referring to the contentions of the Duluth, South Shore & Atlantic Railway Company in a proceeding affecting its ore rates, he said:

> "I assumed an average maintenance of $500 per mile for exclusive ore trackage covering items of expense under the maintenance of way and structures group. I assumed those expenses covered all that pertained to the ore business; there might be other expenses of those tracks, but we assigned no others to the ore business; we treated those track expenses as the equivalent of $500 a mile. For the entire trackage of the Houghton division I found an actual expenditure for the same items of $913.91 per mile."

Bearing in mind that the heaviest traffic on plaintiff's system is over the Houghton division, and that in consequence the highest expenses for the maintenance of way and structures may be expected there, it is patent that the ratio of maintenance used by the state's accountants (that is regarding two miles of side or branch track as the equivalent of one mile of main track) is not unfavorable to the freight traffic.

It is possible that in the ordinary case the proportion of common track used in each service is approximately the same as the relative use of the common track and structures. If such is the fact, then the case at bar is clearly an exception and factors or ratios of division must be employed accordingly. We repeat that no factor or ratio that ignores this abnormal percentage of exclusively freight track can properly be used. We insist that both the modified revenue train mile theory of division and the so-called western passenger fares case method employed by the court must be rejected.

On the trial defendants relied in the court below on the so-called gross-ton-mile theory as furnishing the proper basis for the division of those parts of the common property, the constant renewal and upkeep of which is made necessary principally by the element of wear. As before stated, the computations of the accountants were based on the equated track mileage. The actual ratio is obtained by multiplying the gross weight in each service by the mileage in the period under consideration. The method as applied rests for its support on the fact that the expense of maintaining the property (rather those parts of the property to which the factor is applied) is due to the wear, and that the wear is caused by the tonnage passing over the track structure. That, as between the two traffics, the wear varies in proportion to gross weight seems to us to be a logical deduction. The heavier the train the greater the tractive force that the locomotive must exert, and the greater the strain on the track. This was the method employed by defendant's witness Hillman, and his reasons are set out fully in his testimony (Record Vol. II, pages 1138-1139). See also testimony of witness Thompson (Record Vol. II, pages 846, 848).

The results of the application of the gross-ton-mile method of division, as used by Mr. Hillman, are shown for each of the years, 1914 to 1917 inclusive, in his exhibit Volume IV of the Record. In addition to offering this proof defendants introduced in evidence also exhibits based on a combination of the gross-ton-mile theory with the so-called time of use theory. This method was employed by Mr. Thompson and Mr. Parker. It rests on the theory that common wear expense should be divided on the gross ton mile ratio, and the so-called weather expenses on the time of use theory. Basically, it would not seem to be absolutely required that expenses caused by wear should be divided in precisely the same manner as are expenses due to the passage of time and the action of the elements. Each service uses the common property for a certain portion of each day. The parts, or elements, of the property that must be maintained from time to time, replaced because of weather stress, are necessary for the use of both passenger and the freight, and it does not seem to us to be illogical to make the division on the basis of the time used in each traffic. The so-called Parker exhibit, Volume V of the Record, contains the results obtained for the years 1914, 1915, 1916 and 1917, from the use of this method, or rather combinations of methods. The results thus obtained do not differ materially from those shown by the application of the gross ton mile ratio, thus tending to confirm the latter method.

By way of illustration, let us consider the division of the cost of upkeep of the fencing along the right of way. Plaintiff would divide such cost on the revenue train mile basis, but obviously there is no relation. Neither is there any connection between the value of the fence or the expense of maintenance and the direct charges for wages, fuel, lubricants, etc., that can be made against the two forms of traffic. The fences are there for the protection

of each traffic during the time that it is using the common property. What is true of the fence is equally true of other property that is not destroyed by wear, but which deteriorates from the weather. With reference to the use of this method, we call attention to the testimony of Mr. Thompson and Mr. Parker (Record, Thompson, Vol. II, page 848; Parker, Vol. II, pages 1078, 1079).

On the basis of either of the methods presented by the defendants the plaintiff, during all of the years under investigation received a fair and reasonable return upon the property devoted to the intrastate passenger traffic. The results so obtained are shown in the following tabulations which we have inserted for the convenience of the court. Each computation starts with the Michigan proportion of expenses as used by the trial court as the basis for the results shown in his opinion. The property is divided on the ton mile factor and assignments to passenger and freight are on the basis of equated track and ton miles. The property assigned to the auxiliary operations, that is, mail and express, sleepers and diners, includes merely the cars and a proportion of working capital and of stores and supplies. Deficits are shown in bold faced type. The first computation indicates the result of assigning to each of the outside operations its full proportion of the expenses. In the second computation, it has been assumed that certain of the passenger service expenses would be incurred if the auxiliary operations were not conducted. Therefore, these constant costs have been made and charged upon the passenger and baggage service, no part thereof being assigned to the sleepers, diners, mail and express. In both cases, the passenger and baggage portion of the expenses has been assigned to intrastate and interstate in exactly the same manner as was employed by the trial judge. The results are as follows:

	Total Michigan Passenger	Mineral Range	D.S.S.& A. Passenger	Mail & Express	Sleepers	Diners	Passengers and Baggage Total	Intra.	Inter.
1912									
Value of Passenger Property	$2,428,691	.....	$2,428,691	$27,723	$56,647	$67,121	$2,277,200	$1,448,982	$828,218
Net Income under Two-cent Rate	174,744	.....	174,744	23,950	87,939	40,742	279,475	194,494	84,981
Rate of Return	7.18		7.18				12.27	13.42	10.26
1913									
Value of Passenger Property	$2,514,189	.....	$2,514,189	$27,722	$56,647	$67,117	$2,362,703	$1,549,641	$813,062
Net Income under Two-cent Rate	147,184	.....	147,184	16,231	91,564	79,027	301,544	208,819	92,725
Rate of Return	5.85		5.85				12.76	14.19	11.40
1914									
Value of Passenger Property	$2,625,072	.....	$2,625,072	$28,429	$56,565	$67,011	$2,473,067	$1,599,827	$873,240
Net Income under Two-cent Rate	191,283	17,794	209,077	2,205	121,922	79,036	407,830	272,987	134,843
Rate of Return	7.58		7.97				16.53	17.06	15.44
1915									
Value of Passenger Property	$2,764,880	.....	$2,764,880	$29,802	$56,562	$67,007	$2,611,509	$1,835,629	$775,880
Net Income under Two-cent Rate	82,177	19,077	101,274	5,415	103,931	72,210	272,000	196,930	75,070
Rate of Return	2.97		3.66				10.42	10.73	9.68
1916									
Value of Passenger Property	$2,470,757	.....	$2,470,757	$29,482	$56,909	$67,427	$2,316,939	$1,640,625	$676,314
Net Income under Two-cent Rate	129,606	18,848	148,454	12,782	96,829	68,783	301,284	216,611	84,673
Rate of Return	5.25		6.01				13.00	13.20	12.52
1917									
Value of Passenger Property	$2,368,066	.....	$2,368,066	$30,419	$55,598	$68,242	$2,211,807	$1,563,084	$648,723
Net Income under Two-cent Rate	129,213	21,921	151,134	7,279	110,188	73,160	375,909	256,660	119,249
Rate of Return	5.46		6.38				17.00	16.41	18.38

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	Total Michigan Passenger	Mineral Range	D.S.S.& A. Passenger	Mail & Express	Sleepers	Diners	Passengers and Baggage Total	Intra.	Inter.
1913									
Value of Passenger Property	$2,428,691	.....	$2,428,691	$27,723	$56,547	$67,121	$2,277,200	$1,448,982	$828,182
Net Income under Two-cent Rate	174,744	.....	174,744	43,283	40,685	27,836	208,982	149,640	59,242
Rate of Return	7.18		7.18				9.22	10.33	7.17
1918									
Value of Passenger Property	$2,514,189	.....	$2,514,189	$27,722	$56,647	$67,117	$2,362,703	$1,549,641	$813,062
Net Income under Two-cent Rate	147,184	.....	147,184	37,418	53,196	53,441	216,293	152,908	63,485
Rate of Return	5.85		5.85				9.16	9.87	7.81
1914									
Value of Passenger Property	$2,625,072	.....	$2,625,072	$28,429	$56,565	$67,011	$2,473,067	$1,599,827	$873,240
Net Income under Two-cent Rate	191,283	17,794	209,077	26,917	74,504	54,540	311,204	210,479	100,725
Rate of Return	7.58		7.97				12.58	13.16	11.54
1915									
Value of Passenger Property	$2,764,880	.....	$2,764,880	$29,802	$56,562	$67,007	$2,611,509	$1,835,629	$775,880
Net Income under Two-cent Rate	82,177	19,097	101,274	29,668	89,739	48,714	180,059	132,306	47,754
Rate of Return	2.97		3.66				6.89	7.20	6.15
1916									
Value of Passenger Property	$2,470,757	.....	$2,470,757	$29,482	$56,909	$67,427	$2,316,989	$1,640,625	$676,314
Net Income under Two-cent Rate	129,606	18,848	148,454	33,875	40,233	43,986	268,397	147,307	56,090
Rate of Return	5.25		6.01				8.79	9.00	8.29
1917									
Value of Passenger Property	$2,368,066	.....	$2,368,066	$30,419	$55,598	$68,242	$2,211,807	$1,563,084	$648,722
Net Income under Two-cent Rate	139,318	21,821	161,134	18,070	63,544	51,550	281,306	189,794	91,512
Rate of Return	5.46		6.38				12.72	12.14	14.11

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We believe that the methods of division advanced by the appellants are logical and that the computations fairly show the proper proportion of common property and common expenses that should be charged to each traffic. Defendant's showing being based on the equated track mileage is not open to the charge that it does not take into account the cost of maintenance of exclusive freight and passenger tracks. It seems to us that the court properly refused to accept plaintiff's theory of division; and that he was not justified in going wholly outside of the record for the purpose of obtaining another distinct method. For the reasons pointed out such method so obtained is not a proper one as applied to the operations of plaintiff's railroad and, therefore, its use by the court was error for which the decree should be reversed.

VI.

The Court erred in determining that the plaintiff had overcome by proper proof the presumption of validity and had established confiscation.

An act of a legislative body establishing a rate to be charged by a common carrier is presumed to be valid, unless and until its invalidity is clearly shown by competent and adequate proof. Every legislative act has attached to it the presumption of validity; but in the case of a rate fixing law the presumption is stronger than in ordinary cases. The fixing of a rate in the first instance implies an investigation into facts, and a conclusion on the part of the legislative body that, as a matter of fact the rate established is just and reasonable to the carrier as well as to the public. This determination is not to be lightly disregarded; nor is it to be overlooked that the public using the facilities of the carrier have a direct and vital interest in the matter. These, and other factors, all have a tendency to strengthen the ordinary presumption of validity. In the instant case there are a number of factors involved that tend to render highly uncertain and conjectural the case presented by the plaintiff company.

Some of these matters we have already called to the attention of the court. We have discussed the existence of two parallel lines between Marquette and Ishpeming; and the so-called Western Division. As to these we are confronted with the certainty that if the system were to be rebuilt today the South Line would be omitted and the Western Division would be differently located, if it were built at all. We have also pointed out the result of the operations of the plaintiff company over the line of the Mineral Range, the result being to burden plaintiff's intrastate passenger business. Brief mention has also been made of the construction of the Lake Superior and Ishpeming Railroad and of the competition that plaintiff suffers from that road in the ore traffic.

In order to overcome the uncertainty arising from the foregoing, and other circumstances disclosed by the record, it was incumbent on the plaintiff to establish its case by such degree of proof as can leave no reasonable chance for doubt. Can it be said on this record that plaintiff has met this obligation? Has it shown by clear and convincing proof that confiscation of its property would have resulted in all of the years under investigation had the two cent fare law been put in effect as to its intrastate passenger business? We submit not. Erroneous factors of division of common property and common expense that were used and the improper charging to the passenger business of property and expense that should not have been so charged are in themselves sufficient to defeat plaintiff's case. If plaintiff's underlying theories were not sound, it cannot be held to have overcome the presumption attaching to the act assailed.

In the

Minnesota Rate Case, 230 U. S. 352,

it was said by this court in commenting upon the nature of the proof adduced:

> "We are of opinion that on an issue of this character involving the constitutional validity of state action, general estimates of the sort here submitted with respect to a subject so intricate and important should be not accepted as adequate proof to sustain a finding of confiscation. While accounts have not been kept so as to show the relative cost of interstate and intrastate business giving particulars of the traffic handled on through and local trains, and presenting data from which such extra cost as there may be of intrastate business may be suitably determined, it would appear to have been not impracticable to have had such accounts kept or statistics prepared at least during test periods properly selected. It may be said that this would have been a very difficult matter. But the company having assailed the constitutionality of the State Acts and orders was bound to establish its case and it was not entitled to rest on expressions of judgment when it had it in its power to present accurate data which would permit the court to draw the right conclusion."

In the earlier case of

San Diego Land Co. vs. National City, 174 U. S. 739,

the rule of law with respect to the burden of proof arising upon a party assailing a rate law was declared in

even more emphatic terms. We wish to quote from the opinion in that case as follows:

"It should also be remembered that the judiciary ought not to interfere with the collection of rates established under legislative sanction unless they are so plainly and palpably unreasonable as to make their enforcement equivalent to the taking of property for public use without such compensation as under all the circumstances is just both to the owner and to the public; that is, judicial interference should never occur unless the case presents clearly and beyond all doubt, such a flagrant attack upon the rights of property under the guise of regulation as to compel the court to say that the rates prescribed will necessarily have the effect to deny just compensation for private property taken for the public use. *Chicago & Grand Trunk Ry. vs. Well*, Am. 143 U. S. 339, 344; *Reagan vs. Farmers' Loan & Trust Co.*, 154 U. S. 362, 399; *Smyth vs. Ames*, above cited. See also *Henderson Bridge Co. vs. Henderson City*, 173 U. S. 592, 615.

In view of these principles, can it be said that the rates in question are so unreasonable as to call for judicial interference in behalf of the appellant? Such a question is always an embarrassing one to a judicial tribunal, because it is primarily for the determination of the legislature or of some public agency designated by it. But when it is alleged that a state enactment invades or destroys rights secured by the constitution of the United States a judicial question arises, and the courts, Federal and state, must meet the issue, taking care always not to entrench upon the authority belonging to a different department, nor to disregard a statute

unless it be unmistakably repugnant to the fundamental law.

What elements are involved in the general inquiry as to the reasonableness of rates established by law for the use of property by the public? This question received much consideration in *Smyth vs. Ames*, above cited. That case, it is true, related to rates established by a statute of Nebraska for railroad companies doing business in that state. But the principles involved in such a case are applicable to the present case. It was there contended that a railroad company was entitled to exact such charges for transportation as would enable it at all times, not only to pay operating expenses, but to meet the interest regularly accruing upon all its outstanding obligations and justify a dividend upon all its stock; and that to prohibit it from maintaining rates or charges for transportation adequate to all those ends would be a deprivation of property without due process of law, and a denial of the equal protection of the laws. After observing that this broad proposition involved a misconception of the relations between the public and a railroad corporation, that such a corporation war created for public purposes and performed a function of the state, and that its right to exercise the power of eminent domain and to charge tolls was given primarily for the benefit of the public this court said: 'It cannot, therefore, be admitted that a railroad corporation maintaining a highway under the authority of the state may fix its rates with a view solely to its own interests, and ignore the rights of the public. But the rights of the public would be ignored if

rates for the transportation of persons or property on a railroad are exacted without reference to the fair value of the services rendered, but in order simply that the corporation may meet operating expenses, pay the interest on its obligations, and declare a dividend to stockholders. If a railroad corporation has bonded its property for an amount that exceeds its fair value, or if its capitalization is largely fictitious, it may not impose upon the public the burden of such increased rates as may be required for the purpose of realizing profits upon such excessive valuation or fictitious capitalization; and the apparent value of the property and franchises used by the corporation, as represented by its stocks, bonds and obligations is not alone to be considered when determining the rates that may be reasonably charged.' 169 U. S. 544. In the same case it was also said that 'the basis of all calculation as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property used by it for the convenience of the public. And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating

the value of the property. What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth.' 169 U. S. 466, 546."

We wish to call attention also to the case of

Wilcox vs. Consolidated Gas Co., 212 U. S. 19,

which may be regarded as a close one upon the issue of confiscation. There, as here, the rate had not been put into effect. The testimony produced was conflicting, and the opinion of the experts employed by the parties were not in accord. The court there said:

"In such a case as this where the other data upon which the computation of the rate of return must be based, are, from the evidence, so uncertain, and where the margin between possible confiscation and valid regulation is so narrow, we cannot say there is no fair or just doubt about the truth of the allegation that the rates are insufficient. * * *

Upon a careful consideration of the case before us we are of the opinion that the complainant has failed to sustain the burden cast upon it of showing beyond any just or fair doubt that the acts of the legislature of the state of New York are in fact confiscatory."

Numerous other cases might be cited to the same effect, but there can be no question as to the rule. All reasonable doubts as to the validity of legislative action in the establishment of rates must be resolved in favor of the statute, rather than against it. As stated in the Con-

solidated Gas Company case, the confiscatory character of such rates must be shown "beyond any just or fair doubt." The cases in which the matter has been discussed are well summarized in

4 R. C. L., page 632,

in the following language:

> "Where the question of reasonableness of rates fixed by legislative act, either directly by the legislature or through the agency of a body such as a railroad commission, is presented for judicial review, it is clearly established that the presumption of reasonableness accompanies the legislative act. This presumption has been treated lightly in some cases, being viewed as no more than the ordinary presumption in favor of acts of legislation, and possessed of no special strength or sanctity, a presumption that slight evidence would rebut, but the better and much more generally expressed doctrine places upon the carrier the necessity of showing that the statute clearly, or, as some courts say, palpably or beyond a reasonable doubt, is invalid, or, in other words, a commission's findings of fact should not be disturbed unless clear and unmistakable error is shown. This burden continues at every stage of the inquiry and in respect to all matters affecting the earning capacity of the carrier, its fixed charge, the operating expenses, sources of revenue, and the value of property itself."

An examination of the entire record, a consideration of the conflicting testimony introduced and an analysis of the divergent theories advanced will not, we believe, warrant the conclusion that plaintiff adequately met the

burden of proof resting on it. On the contrary we insist that the defendants established by affirmative showing that the two cent rate, if put in operation, would not have been confiscatory during any of the years from 1912 to 1917 inclusive. The state did not take the position here, as has been done in some instances, of merely attempting to discredit the showing made by the railroad company. The issues presented were met in all instances in the spirit of fairness, and with the purpose in mind of determining the true fact. If it were purely a question of weighing testimony, it seems to us that the preponderance must be adjudged to lie with the state.

In his opinion the district court did not specify the minimum rate that he regarded as non-confiscatory. He went no further in this respect than to assume that the rates of return for the different years, as shown in the computations made by him, were not sufficient to yield a fair return on the property devoted to the intrastate passenger business. It is our contention that a return equaling or approximating the statutory rate of interest cannot in any event be held so inadequate as to justify the nullification of a state law. That rate in Michigan is five per cent. As we read the cases there seems to be a decided tendency to take the legislative rate as the criterion. Thus in

Willcox vs. Consolidated Gas Co., 212 U. S. 19,

it was indicated that a return of six per cent would be a fair one. The statutory rate in New York at that time was six per cent. The same conclusion was reached in the

Denver Water Company Case, 246 U. S. 178,

the rate of interest in Colorado being likewise six per cent. In a number of instances statutes or ordinances

permitting a return substantially less than the statutory rate have been upheld. In California such rate is seven per cent; but in

Stanislaus Co. vs. San Joaquin Co. & I. Co., 192 U. S. 201,

it was held that rates permitting a return of six per cent upon the value of the property actually used were not open to attack. To the same effect is

San Diego Land & Town Co. vs. Jasper, 189 U. S. 439.

The foregoing and numerous other cases that might be cited, clearly show the trend of decisions. A rate permitting a carrier to earn a return approximately equal to the rate of interest prescribed by the statute is not confiscatory. Measured by this test the rate of return on the intrastate passenger business for the year 1912, as shown in the court's computation (Record Vol. I, page 88) was adequate and the rate of return for each of the years 1913 and 1914 was so close to the statutory rate as not to warrant a judicial determination of confiscation.

If defendants are correct in any of the main propositions that we have advanced, and on which we rely, the plaintiff would have received during each of the years investigated, under the operation of the two cent law, a reasonable and fair return on that portion of its property devoted to the intrastate passenger business.

We have hereinbefore called attention to the fact that the two cent rate was never put in operation by the plaintiff company. It was the only carrier in the State of Michigan, subject to the two cent law, that did not comply with it. It seems reasonable to believe that had the rate been

reduced from three to two cents, traffic would have been increased, to some extent at least. We desire to call attention in this connection to the testimony of Prof. Adams (Record Vol. II, page 1134), who referred to the corresponding reduction of rates on the Michigan Central and the stimulation of traffic that followed. Mr. Hillman (Record Vol. II, page 1158) spoke of another instance of the same character affecting the Louisville and Nashville Railroad Company.

This probable increase in travel under the reduced rate is a matter that should not be ignored in the determination of this case. It cannot fail to raise a doubt as to the propriety of the assumption that the reduction in revenue following the installation of the reduced rate can be accurately measured in dollars and cents. Both the plaintiff and the district court found it necessary to make this assumption. In fairness, however, it must be said that we do not know, nor does anyone know, what results would follow an actual change in rate from three to two cents. The element of speculation in this regard necessarily enters into plaintiff's case and must be taken into account.

In conclusion, we respectfully insist that the objections raised to the decree of the court below are each and all well taken, and that the case should be reversed. It is apparent from the computations included herein that the property values can be very materially increased and the rate of return under the two cent fare law is still shown to be non-confiscatory. Plaintiff has not only failed to establish its case by the requisite degree and character of proof, but the defendants have shown on this record that the rate prescribed by the statute is, as applied to the

plaintiff's road, a fair one. We ask, therefore, that the decree of the district court be reversed.

Respectfully submitted,

ALEX. J. GROESBECK,
Attorney General,
Attorney for Defendants and Appellants.

ROGER I. WYKES and
LELAND W. CARR,
Of Counsel.

SUBJECT INDEX.

TABLE OF CASES CITED.

REFERENCES TO RECORD.

The Record, as printed, consists of seven volumes.

Volume I (pages 1-576) contains the pleadings, and all court orders, etc., and a portion of the testimony.

Volume II (pages 577-1195) contains the remainder of the testimony and certain of the plaintiff's exhibits.

Volume III (separately paged) contains the report of the Special Master.

Volume IV (separately paged) contains a comparison of the valuation exhibits of the plaintiff and of the defendants.

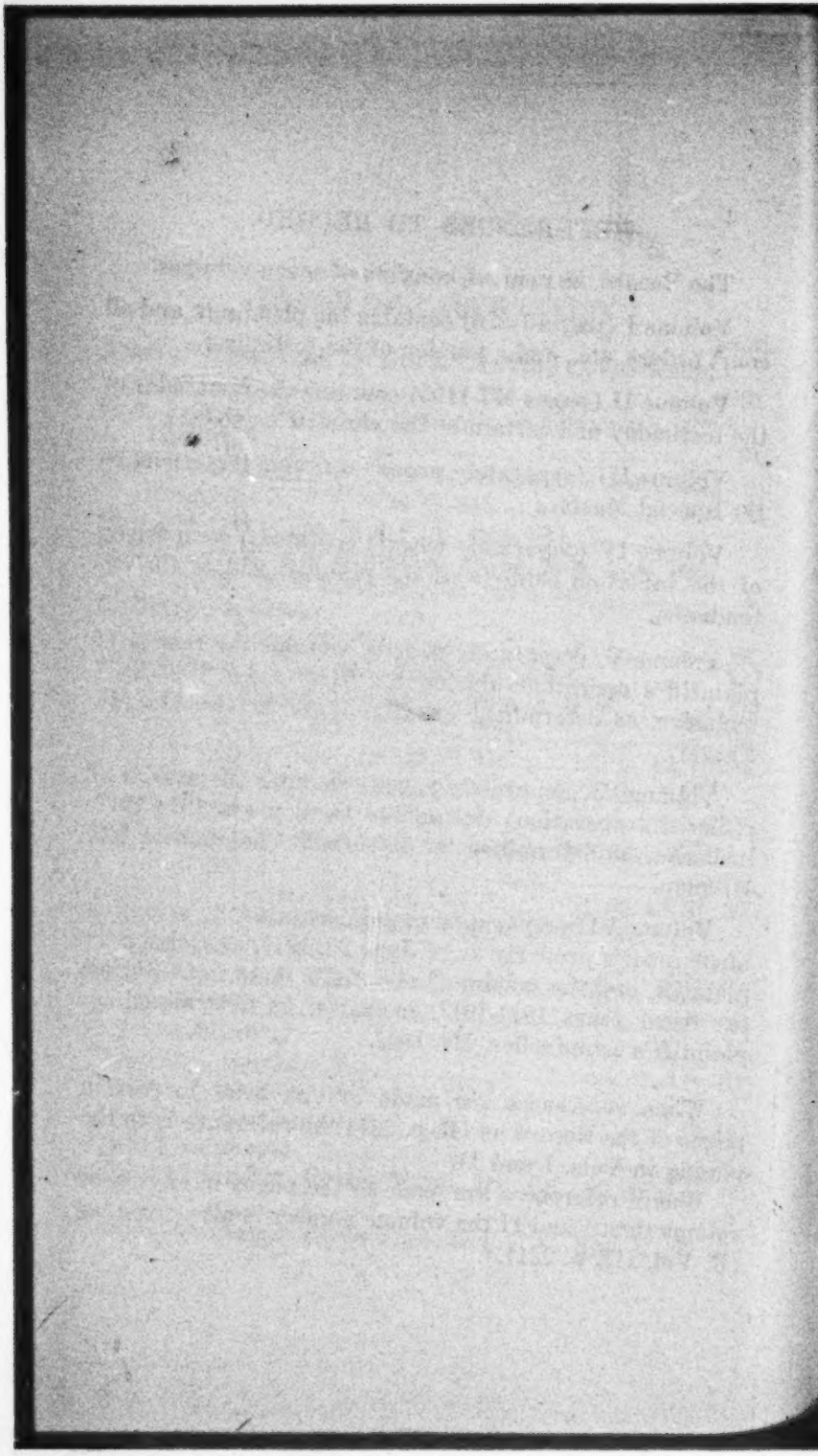
Volume V. (separately paged) contains the results of plaintiff's operations during the fiscal years 1914-1917, inclusive, as determined by defendants' accountant Mr. Parker.

Volume VI (separately paged) contains the results of plaintiff's operations during the fiscal years 1914-1917, inclusive, as determined by defendants' accountant Mr. Hillman.

Volume VII (separately paged) contains the valuation of plaintiff's property as of June 30, 1917, as claimed by plaintiff, and the results of plaintiff's operations during the fiscal years 1914-1917, inclusive, as determined by plaintiff's comptroller, Mr. Delf.

When references are made in this brief to certain pages of the Record as (R. p. 221) the reference is to the paging in Vols. I and II.

Where references are made to the pages in any other volume than I and II the volume number is also given, as (R. Vol. III, p. 221).



DULUTH, SOUTH SHORE & ATLANTIC RAILWAY.

DULUTH, SOUTH SHORE & ATLANTIC RAILWAY.

IN THE

Supreme Court of the United States.

OCTOBER TERM, 1918.

ALEX J. GROESBECK, CASSIUS S. GLASCOW, CHARLES S. CUNNINGHAM and ADDISON L. KEISER, Defendants and Appellants, *vs.* DULUTH, SOUTH SHORE & ATLANTIC RAILWAY COMPANY, Plaintiff and Appellee.	No. 759.

BRIEF FOR PLAINTIFF AND APPELLEE.

NATURE OF CONTROVERSY.

This is an appeal from a decree of the District Court of the United States for the Eastern District of Michigan, enjoining the defendants and appellants, who are the Attorney General and the Members of the Railroad Commission of the State of Michigan, from enforcing against the plaintiff and appellee the provisions of the so-called Michigan two-cent passenger fare law. Since the appeal was taken the Michigan legislature has repealed the act in question (see Public Acts of Michigan for 1919, Act 382) and this would now be a moot case if it were not that there is still at issue between the parties the question of the validity of certain refund coupons issued by the plaintiff during the period of the litigation under the provisions of a certain temporary restraining order.

History of the Case.

Under the Constitution of the State of Michigan, the Legislature is granted authority to "pass laws establishing reasonable maximum rates of charges for the transportation of passengers and freight on different railroads in this State." Art. XII, Sec. 7, Mich. Constitution.

Under such authority the Legislature has for many years past prescribed maximum passenger rates on the different railroads in the state, prescribing one rate for certain classes of roads in the lower peninsula, and a higher rate for similar classes of roads in the upper peninsula, the reason for the difference in rate being that the upper peninsula is much more sparsely settled, and that this lower density of population and the more severe climatic conditions in the upper peninsula make railroad operations there much more difficult and expensive than in the lower peninsula. Prior to 1889 the maximum rate fixed by law for adult passengers was 3¢ a mile in the lower peninsula and 5¢ a mile in the upper peninsula; from 1889 to 1907, the rates were respectively 2½¢ and 4¢ a mile; in 1907 they were reduced to 2¢ and 3¢ per mile respectively; and in 1911 the Legislature passed Act. No. 276, being the statute complained of in this case, making the rate for all companies in the state, the gross earnings of whose passenger trains equalled or exceeded $1,200 per mile of road operated by such company, on which regular passenger service was maintained, 2¢ per mile. The exact provisions of the statute are more fully set out in the bill of complaint in this case (R. p. 3), and the text of the statute is printed as an appendix to this brief.

Thereupon the plaintiff filed its bill of complaint against the then attorney general and the then respective commissioners constituting the Michigan Railroad Commission, and against three individuals who were alleged to be persons accustomed and intending in the future to

use plaintiff's railroad. Against the officials above named, it was sought to restrain them from attempting to enforce Act 276; while the individual defendants were joined in the case as representing the public. All of the defendants appeared by the attorney general.

Upon the filing of the bill an application for an interlocutory injunction was made, and pending the hearing upon such application a restraining order was issued. For reasons which need not be stated, no complete hearing was ever had or decision made upon the application for a temporary injunction; but by consent, the original restraining order was continued in force up to the entry of the final decree. Pursuant to stipulation, and by order of court, the restraining order was conditioned that plaintiff should issue to each person buying Michigan intrastate passenger transportation, a receipt or certificate by which it should bind itself to refund to the holder thereof the excess fare paid if the validity of the statute finally should be sustained. The redemption of the rebate receipt and the repayment of the excess fares were required to be secured, at first, by a bond for $200,000, and later, in addition to the bond, by the deposit of the moneys so received in designated banks subject to the order of the court. The fund so on deposit now amounts to the sum of $815,585.83, the disposition of which depends upon the final outcome of this suit.

In May, 1912, the case was referred to Herbert L. Baker, Esq., of Detroit, as a Special Master, to take the proofs, to make the necessary computations, to find and state the facts and to report his findings and recommendations to the court. At intervals during a considerable period of time very extensive proofs were taken, the testimony, aside from any exhibits, covering more than twelve thousand typewritten pages. The transactions and operations of plaintiff in the four fiscal years 1910 to 1913, including its revenues, receipts, and expenditures in each

of those years, and also the condition and value of the property employed in each branch of its service, were inquired into and examined in minute detail. Elaborate schedules, tables and computations based upon the theories and formulas of eminent engineers and expert accountants were presented. Voluminous briefs were filed and lengthy oral arguments were had, and the case was finally submitted to the Master about March 1, 1915. About June 1, 1916, the Master furnished counsel with a draft of his proposed report to which he invited their criticisms and objections, and after fully considering all such criticisms and objections, on February 1, 1917, the Master filed his final report, which appears as volume III of the Record. In this report the Master found that the enforcement against the plaintiff of the act complained of would result in the confiscation of plaintiff's property, and recommended that a decree be entered in favor of the plaintiff for the relief sought. To this report both parties filed exceptions, and, the judge of the Eastern District of Michigan, where the case was pending, having expressed himself as disqualified from hearing the case on the ground that he had been a member of the Legislature by which the act in question was passed, the Circuit Judges assigned to case for hearing, on the Master's report, to District Judge C. W. Sessions, of the Western District of Michigan. Judge Sessions took the position that the case ought not to be heard, and a decision ought not to be reached on proofs relating to conditions which were at that time nearly three and one-half years old, and that the Master's report, based upon such proofs, was insufficient as a basis for an adjudication of all the issues in the case, and insisted that the record should be brought down as nearly as possible to date by proofs taken in open court, and by a new hearing upon the proofs so taken. Thereupon new schedules were prepared by both parties, extensive tests were made and supplemental proofs were

taken in open court, in November and December, 1917, the additional proofs covering plaintiff's railroad operations during the four fiscal years of 1914 to 1917 inclusive. The case, therefore, as presented to the court, was upon the testimony taken before the Master and the additional proofs taken in open court.

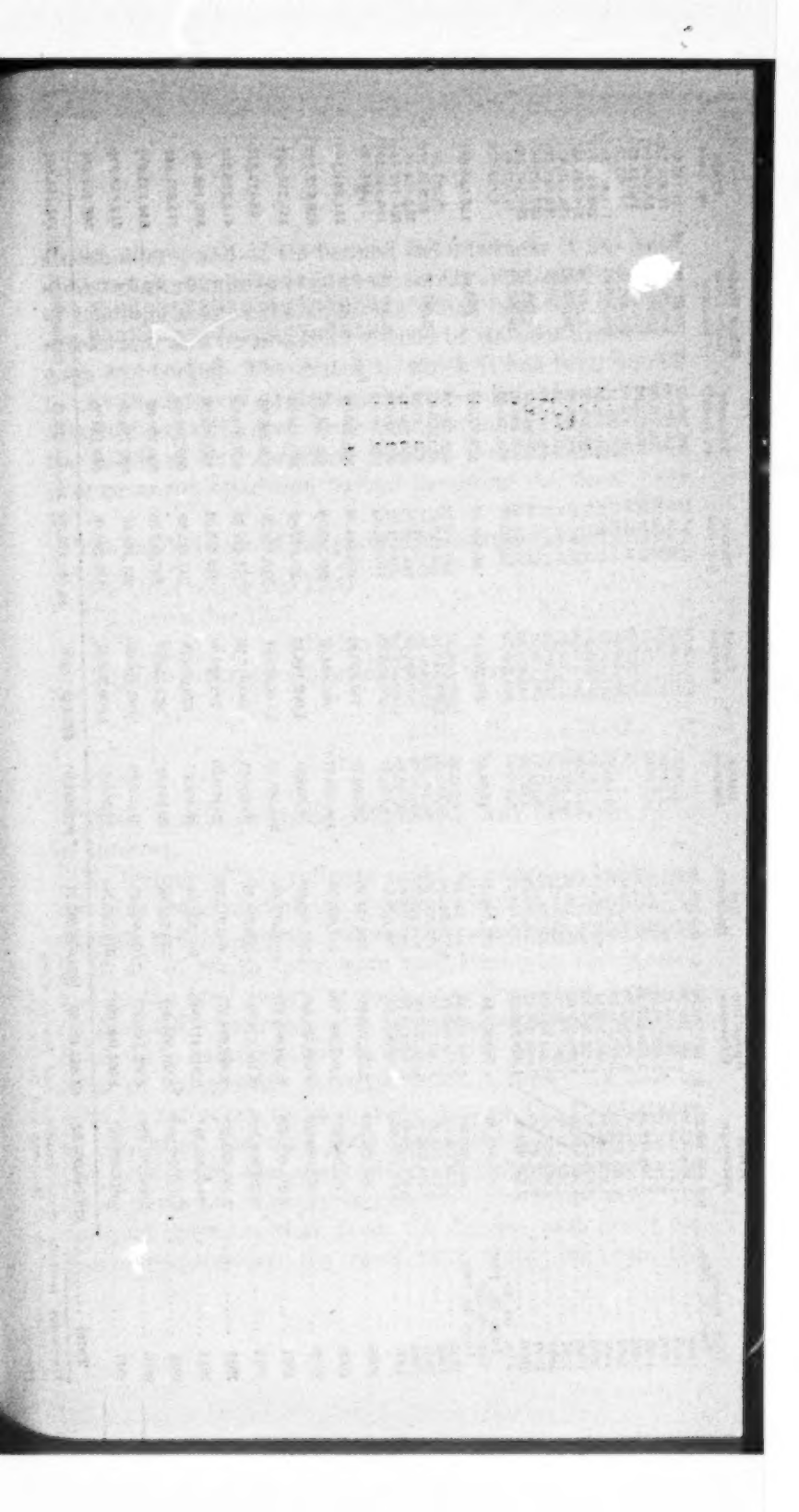
On January 8, 1918, the court handed down an opinion to the effect that the plaintiff was entitled to the decree prayed in its bill of complaint (R. pp. 73-89). Following this opinion, a final decree was entered in favor of the plaintiff on February 14, 1918 (R. pp. 90-92). This decree enjoined the defendants from enforcing, as against the plaintiff, the act complained of, and also ordered that the bond filed by the plaintiff to secure the coupons issued under the restraining order be discharged and that the money deposited in the banks for the redemption of the coupons be paid over to the plaintiff. Upon the taking of the appeal, this portion of the decree was stayed, and the plaintiff was compelled to continue issuing coupons pending the appeal. The plaintiff continued to issue these coupons until January 1, 1918, on which date the United States Government took over the operation of plaintiff's road. The Director General of Railroads continued to issue these coupons until June 1, 1918, when the new passenger rates ordered by him were put into effect. Since that time no coupons have been issued.

Location and History of Plaintiff's Railroad.

The history of plaintiff's railroad is similar to that of almost any trunk railroad in the United States, in that it is a consolidation of many smaller lines built at different times. The first line was built in 1855 and ran from Marquette 20 miles west, to reach the iron mines then being opened up near Ishpeming. Later this portion of the road was extended in sections constructed at different times to Houghton, to connect the "iron country" of Michigan

with the so-called "copper country," practically all of this construction being under federal and state land grants. In 1871 the State of Michigan, out of a desire to establish railroad connections between the two peninsulas, offered a swamp land grant for the construction of a railroad from St. Ignace, on the Straits of Mackinac, to the city of Marquette, which railroad was constructed under many difficulties and was finally completed in 1881. None of these roads was profitable, and it became apparent that the only hope for making them profitable was to consolidate them as parts of a through system. So in 1887 the plaintiff corporation was organized for the purpose of consolidating these different roads and building a through line from Sault St. Marie, where a through eastern connection was to be had with the Canadian Pacific R. R., west to Duluth, Minnesota, where connection was to be had with the railroads from the west. Following its organization, a line was built by the plaintiff east from Soo Junction to Sault St. Marie and west from Nestoria to Duluth, thus creating the through system as planned. On this consolidation none of the lands so granted by either the federal or the state government came into the possession of the plaintiff except a small portion of one of the state grants.

The expectations of the promoters, so far as the profitable operation of the railroad was concerned, were never realized, although this railroad has given to the upper peninsula of Michigan, and, for that matter, to the lower peninsula, the benefit of a fairly well operated railroad, geographically and in every economic view of the greatest public value. So far, the public alone has been benefited by its operations, and it would seem that this benefit would continue for all times, as it has been demonstrated that it can earn its operating expenses. Those who own the property, however, have failed to realize any benefit from it. It has never paid one cent of dividends to its



DULUTH, SOUTH SHORE & ATLANTIC RAILWAY COMPANY

STATEMENT OF OPERATIONS

Year ended	Gross Earnings	Operating Expenses	Net Earnings	Other Income	Total Income	Taxes Accrued	Interest on Bonds	Other Deductions from Income	Profit or Loss
Dec. 31, 1897 ...	$ 1,465,689.22	$ 981,730.89	$ 693,958.34		$ 693,958.34	$ 31,001.57	$ 265,788.07	$ 175,919.68	$ 121,189.02
1898	1,469,522.16	865,796.06	594,794.10	$ 8,306.33	503,100.43	26,158.48	440,072.00	196,707.31	79,837.36‡
1899	1,976,350.26	1,146,876.13	829,474.26	2,836.00	832,312.26	36,956.25	519,352.00	329,670.57	53,666.56‡
1900	2,241,097.12	1,422,703.81	818,393.31	1,158.00	819,551.31	43,844.95	519,012.00	313,417.86	56,723.50‡
1901	2,160,118.24	1,332,292.34	827,825.90		827,825.90	44,835.90	516,932.00	253,092.62	12,375.36
1902	2,249,194.25	1,484,695.20	764,499.05		764,499.05	44,569.61	671,704.24	165,716.63	117,491.33‡
1903	2,078,777.54	1,474,754.88	604,022.66	10,135.51	614,158.17	42,846.18	870,166.66		298,854.67‡
1904	1,670,787.00	1,094,238.81	576,748.19	3,787.48	580,535.67	44,024.97	866,000.00	2,950.10	334,439.40‡
1905	1,811,822.05	1,121,503.23	690,319.70	55,076.00	745,395.70	35,601.65	866,265.00	26,725.86	183,226.81‡
1906	1,905,810.53	1,234,679.67	671,130.86	32,402.20	703,533.06	38,462.47	901,096.24	856.47	196,884.22‡
1907	1,591,114.88	1,064,723.70	526,391.18	20,807.56	546,998.74	41,031.71	860,166.33		352,155.08‡
1898	1,821,807.59	1,224,045.79	597,761.80	5,417.91	603,179.71	41,754.84	859,616.67	7,953.78	298,191.80‡
1899	2,407,437.39	1,468,696.17	938,541.22	4,937.31	943,478.53	53,653.45	859,700.00	16,067.08	14,057.44
1900	2,557,973.46	1,628,839.21	929,134.25	5,446.45	934,580.70	78,900.27	859,700.00		4,169.57‡
Jan. 1st to June 30, 1901...	1,169,524.26	799,821.51	377,702.75	4,050.43	381,753.18	80,244.42	429,850.00	393.45	128,834.68‡
Year ended June 30, 1902....	2,600,569.36	1,668,818.38	1,001,750.98	6,286.22	1,008,036.20	128,068.92	859,700.00		20,337.28
1903	2,772,134.67	1,758,089.74	1,014,044.93	14,665.20	1,028,710.13	200,213.67	859,700.00	2,647.00	33,850.54‡
1904	2,524,612.07	1,749,456.12	775,155.95	11,483.96	786,639.91	210,391.07	859,700.00		283,451.16‡
1905	2,706,936.02	1,882,705.09	824,230.93	15,650.35	839,881.28	216,733.73	859,700.00		206,552.45‡
1906	3,057,775.40	2,057,459.76	1,000,315.64	9,112.88	1,009,428.52	292,471.22	859,700.00	13,593.40	156,336.10‡
1907	3,311,878.06	2,320,857.89	991,020.17	8,930.48	999,950.65	170,282.84	859,700.00	25,503.76	55,535.95‡
1908	2,986,058.38*	2,252,788.68†	734,171.70	30,405.22	764,576.92	186,345.24	859,700.00	Dep. 35,539.30	351,661.18‡
1909	2,785,586.83*	2,037,900.83†	747,686.00	146,208.67	893,894.67	203,500.70	859,700.00	" 39,053.56	230,627.77‡
1910	3,372,089.65*	2,330,509.63†	1,041,480.02	50,656.14	1,092,148.16	225,917.63	859,700.00	" 28,204.21	551,714.96‡
1911	3,219,861.55*	2,330,955.87†	888,905.68	249,569.69	1,138,475.37	215,179.79	859,700.00	" 32,418.53	68,119.01‡
1912	3,224,906.56*	2,464,234.01†	760,672.57	39,238.61	799,911.18	217,417.80	859,700.00	" 184,628.63	412,235.00‡
1913	3,495,672.33*	2,802,658.57†	693,013.76	34,806.30	727,820.06	219,625.03	859,700.00	" 173,616.56	596,196.54‡
1914	3,495,644.54*	2,842,411.00†	653,233.54	26,462.25	679,695.79	247,442.99	859,700.00	" 19,340.81	713,741.34‡
1915	2,938,597.06*	2,401,834.66†	536,762.38	42,134.59	578,896.97	197,313.26	859,700.00	" 112,073.78	495,815.67‡
1916	3,506,792.22*	2,482,148.51†	1,024,643.71	61,272.96	1,085,916.67	251,780.46	859,700.00	" 41,675.42	276,433.29‡
1917	4,074,692.84*	3,055,980.60†	1,018,712.24	71,588.23	1,090,300.47	191,290.16	859,700.00	" 93,352.98	366,383.65‡
								Dep. 46,072.54	
								196,620.53	
								Dep. 57,879.40	
								228,634.74	
								" 67,482.56	
								105,210.80	
								" 39,608.86	
								148,270.64	
								" 68,354.54	
								237,338.82	
Total	$78,740,004.62	54,963,496.85	$24,076,507.77	972,635.93	$25,049,143.70	$4,068,170.29	$24,022,115.41	$3,490,400.66	$6,532,151.66‡

*Includes revenue from Sleeping and Dining Cars.
†Includes expenses of Sleeping and Dining Cars.
‡Deficit.

stockholders, and of its bonded indebtedness it has been able to pay regularly only the interest on a small amount of bonds of one of the railroads which made up the consolidation, and on about $3,816,000 of its own first mortgage 5% bonds. The extent to which it has been unable to pay the interest on its remaining bonds is shown by the attached exhibit taken from the testimony, which gives the result of its operations year by year, from the time it commenced operation to and including the fiscal year 1917.

The funded debt of the plaintiff's railroad is as follows:

4% Gold bonds due 1990					$15,107,000.
5% bonds due 1937					3,816,000.
M. H. & O. 6% bonds due 1925					1,077,000.
Equipment trust obligations			11th	Series	5,800.
"	"	"	12th	"	31,000.
"	"	"	13th	"	132,000.
"	"	"	14th	"	392,000.

These equipment trust obligations bear different rates of interest.

No history of this railroad could be complete which did not give some idea of the country which it traverses, its climate and its population and the population tributary to it, all of which facts were well known to the Master and to the trial judge, as both have frequently traveled on plaintiff's railroad, and have had an opportunity to inspect the same and are familiar with the general character of the country through which it runs. As will be seen by reference to the outline map on the frontispiece of this brief, the road runs east and west, skirting, for the most part, the south shore of Lake Superior. In some parts the country is rugged. The location of the railroad requires that from St. Ignace and Sault St. Marie respectively, the road must climb up from the

level of Lake Michigan and Lake Superior respectively and to reach Marquette, must descend again to the level of Lake Superior. From Marquette it must pass over a divide and again reach the level of Lake Superior at L'Anse, whence it must again climb up, only to descend to the level of Portage Lake at Houghton. Yet, of the railroads just mentioned, with the exception of the line from Sault St. Marie to Soo Junction, the route of the road was dictated either by the State of Michigan or by the United States.

The winters in the upper peninsula are considerably longer, the cold is more severe, and the snowfall is much greater than in the lower peninsula; and the operation of a railroad is therefore more expensive. The operation of plaintiff's railroad is particularly expensive, as, skirting as it does the south shore of Lake Superior, it receives through its whole length the force of all storms from the north. That the operation of a railroad in such territory is more attendant with difficulties than in other sections of the United States has long been recognized by Courts and commissions:

Wellman *vs.* Chicago Grand Trunk Ry. Co. 83 Mich. 592.

Michigan Copper & Brass Co. *vs.* D. S. S. & A. Ry. Co. *et al*, 25 I. C. C. 357 at p. 363.

In the Wellman case above cited the court said (p. 600):

> "We are authorized to take judicial knowledge, for it is a matter of general knowledge, that the cost of building and running railroads in the Upper Peninsula is much greater than in the Lower, owing to the marked physical difference between them in the character and face of the country. This distinction has been carried in the railroad law of this state

for over 17 years; and distinctions in the legislation, upon many matters, between the two peninsulas have been constant and frequent ever since the Upper Peninsula has been a part of Michigan."

An examination of the map will show that there are no large centers of population on this railroad in Michigan from which to draw traffic. According to the census of 1910, Sault St. Marie had then a population of 12,615, and St. Ignace of 2,118, and between those places and Marquette, which then had 11,503 population, there is in 151 miles of railroad, only one considerable village, Newberry, with a population of 1,182 inhabitants. Ishpeming, twelve miles from Marquette, had 12,448 population; and Negaunee 8,460; and outside of these places there was but one village, Baraga, that had 1,000 population until Houghton is reached, with its population of 5,113. From Nestoria west to the State line there was no city or village of 1,000 population unless it was the village of Ewen, the population of which is not separately given in the census report.

It appears from the evidence in the case (plaintiff's exhibit 53-R. p. 1179) that in 1910 the population per mile of main line railroad owned in the entire state of Michigan was 491; in the upper peninsula it was 218; in the lower peninsula 587. The population per mile of all tracks owned for the entire state was 271; in the upper peninsula 109; in the lower peninsula 336. According to the census reports the population of the upper peninsula of Michigan in 1910 was only 19.5 inhabitants per square mile; while in the lower peninsula it was 60.9 inhabitants per square mile.

The following comparative table, compiled from the annual reports of the Michigan Railroad Commission (R. p. 1042) shows very graphically the reasons why the plaintiff cannot profitably carry passengers at the same

rate of fare prescribed for railroads in the lower peninsula. The comparative statistics are those of the Michigan Central and Grand Rapids & Indiana railroads, two representative carriers of the lower peninsula, the Michigan Central being a so-called "prosperous" road and the Grand Rapids & Indiana being a so-called "struggling" road.

MICHIGAN PASSENGERS CARRIED ONE MILE PER MILE OF ROAD.

R.R.	1911	1912	1913	1914	1915
Mich. Cen.	197,732	203,968	214,246	226,881	222,795
G. R. & I.	159,075	161,987	169,722	175,639	164,541
D. S. S. & A. (plaintiff)	74,721	72,238	77,337	88,524	67,493

PASSENGER TRAIN REVENUE PER MILE OF ROAD.

(The Mich. Cen. and G. R. & I. charging at the rate of 2¢ per passenger mile and the D. S. S. & A. at the rate of 3¢ per passenger mile).

Mich. Cen.	4,751	4,842	5,344	5,662	5,628
Mich Gen.	4,751	4,842	5,344	5,662	5,628
G. R. & I.	3,370	3,461	3,716	3,896	3,729
D. S. S. & A. (plaintiff)	2,199	2,068	2,194	2,458	2,027

GENERAL PRINCIPLES OF LAW.

It is well settled by decisions too numerous for citation, that a State, under its police power, may regulate the rates to be charged by common carriers for services rendered by them within the state. But this power is not an arbitrary one, nor is it without limitation.

Over the state and its legislature, stands the Constitution of the United States, as "The Supreme Law of the land." (Article I. Sec. 2).

Article I, Sec. 10 of the Constitution, provides:

> "No state shall pass any * * * * law impairing the obligation of contracts."

Consequently, if a railroad company has a valid contract authorizing it to charge a certain rate, any state law attempting to impose upon the company a lower rate, is in excess of the power of the state, and void.

Article I, Sec. 8 of the constitution provides:

> "Congress shall have power to regulate commerce with foreign nations, and among the several states, and with Indian tribes."

Consequently, when under this power, congress has legislated with respect to interstate commerce, and an act of a state regulating railroads directly interferes with the application or enforcement of the federal law, the act of the state is beyond its power, and is void.

The Fourteenth Amendment to the Constitution of the United States, in Section I provides:

> "Nor shall any state deprive any person of life, liberty or property without due process of law."

Consequently, whenever an act of a state, in the regulation of railroads, operates to take from the carrier, any of its property without compensation, the act is beyond its power and is void.

Railroad companies are persons within the meaning and protection of this constitutional provision.

> *Santa Clara Co.* v. *Southern Pacific R.R. Co.*, 118 U.S. 394 (p. 396).

Property as protected by this constitutional provision,

consists not only in the title to physical property itself, but also in the right to a reasonable return upon the fair value of property devoted to a public use. Consequently if an act of the state in regulating railroads, attempts to impose upon a carrier, a rate which will yield a return upon the property used and useful in its public service, below what is reasonable, then the act of the state is beyond its power, and is void.

Minnesota Rate Cases, 230 *U.S.* 352 (*p.* 434).

Inasmuch as the power of a state is limited to the regulation of rates and charges for business done within the state, it follows that this state rate, to be valid, must produce from purely state business, a fair return upon the reasonable value of the property of the carrier, used and useful in its state business.

Minnesota Rate Cases, 230 *U. S.* 352 (*p.* 435).

While it is true that each item of traffic transported need not necessarily yield the same percentage of profit, yet the state has no power to compel the carrier to transport passengers at less than a reasonable rate, even though the aggregate return of the carrier from all its traffic within the state, both freight and passenger, is adequate. In the investigation of the validity of a state law fixing passengers rates, inquiry is limited to the question whether the proposed rate will yield a passenger revenue which will constitute a reasonable return upon the property of the carrier used and useful in its passenger business within the state; and in this inquiry, the amount of return received by the carrier from the transportation of freight, is immaterial.

Norfolk & Western Ry. v. *West. Va.*, 236 *U. S.* 605.

The Issues of Fact.

To maintain its allegations that the rate complained of would be confiscatory, it became incumbent upon the plaintiff to prove that under such rate the return from its intrastate passenger business would not be sufficient to enable it to pay its operating expenses, maintain its property and pay a fair return upon the value of the property used in such intrastate passenger business.

It therefore became necessary to establish two principal facts: first, the fair value of the property employed by plaintiff in its intrastate passenger business; second, the net return which plaintiff may expect to realize from its intrastate passenger operations under the prescribed rate.

To establish the first fact, it became necessary to value the entire property of the plaintiff in Michigan; then to ascertain the value of the property used in the entire passenger service; and then to ascertain the value of the property used in the intrastate passenger service.

To establish the second fact, it was necessary to ascertain what the total revenues and expenses of the plaintiff have been in the past; what portions of such revenues and expenses came from business in the State of Michigan; what portions of such revenues and expenses came from the passenger business; what portions of such revenues and expenses came from the intrastate passenger business; then to make the proper computations to obtain the net results of the operations of the past, as a guide in considering the future; and also to find what the loss in intrastate passenger revenues would be if the reduction in rate ordered by the act complained of were put into effect.

Valuation.

The trial judge in deciding this case, did not find it

necessary to investigate and determine the real value of plaintiff's property in Michigan devoted to the public use. It was apparent to him that the return which the statute would yield to the plaintiff company would be so small that even accepting the valuation of the property as claimed by the defendants the return would be inadequate and confiscatory and upon this basis he decided the case.

We believe that this court will reach the conclusion announced by the trial court and will therefore find it unnecessary to go into the questions as to the real, actual value of the plaintiff's property. In this brief therefore, we shall present our case upon that theory, taking as the basis for our computations the values of the different property schedules as claimed by defendants and as allocated by them to (1) Exclusive passenger property. (2) Exclusive freight property, and (3) Property used in common by the passenger and freight services.

However, should this court reach a different conclusion than that reached by the trial judge it will be necessary to determine the real actual value of plaintiff's railroad property. To aid the court in such investigation and determination, if it is necessary to be made, we are filing herewith a separate brief on the questions of property value.

Division of Property Values Between Passenger and Freight.

Both parties in presenting to the court an inventory and appraisal of plaintiff's railroad property in Michigan allocated each item of property to the service in which such item of property was used, whether passenger or freight. Such items of property as were used in both services were assigned to common passenger and freight. Some minor differences arose as to certain allocations, which differences were adjusted during the hearing, with

the result that there is now practically no dispute between the parties as to these allocations. Slightly more than one-third in value of total property of the plaintiff was thus allocated to one service or another. The values and allocations of the defendants, upon which, for the purpose of this brief, we base our computations, are as follows:

	Total	Passenger	Freight	Common pas. & freight
1913	$11,068,193	$494,104	$3,683,711	$6,890,378
1914	11,674,752	540,031	3,909,531	7,225,190
1915	11,697,474	531,607	3,899,190	7,266,677
1916	11,526,134	523,565	3,706,621	7,295,948
1917	11,875,868	502,095	3,845,207	7,528,566

[Note.—The above allocations are not exact, as it is difficult to determine from defendants' exhibit 332 (not printed), from which exhibit these figures are taken, just how the net additions to the property during the years subsequent to 1913 were allocated by defendants, but we believe them to be substantially the allocations as claimed by defendants.]

For that portion of the property used in common by both services some method of apportionment had to be devised. Although many methods have been used in the past by lower courts and by commissions for making the division of this property, the only announcement by this court with reference thereto is its statement in the Minnesota Rate Cases that

> "When rates are in controversy, it would seem to be necessary to find a basis for a division of the total value of the property, independently of revenue, and this must be found in the use that is made of the property, that is, there should be assigned to each business that proportion of the total value of the property which corresponds to the extent of its employment in that business. It is said that this is extremely difficult; in particular, because of its necessity for making a division between passenger and

freight business and the obvious lack of correspondence between ton miles and passenger miles. It does not appear, however, that these are the only units available for such a division; and it would seem that after assigning to passenger and freight departments respectively, the property exclusively used in each, comparable use units might be found which would afford the basis for a reasonable division with respect to property used in common."

As to certain schedules, "comparable use units" readily suggested themselves and were agreed upon. For example, the value of each locomotive was apportioned between passenger and freight on the basis of the miles run during the years 1913 and 1917 respectively in the passenger and in the freight service. Values of switch engines were apportioned on the proportions of passenger and freight yard switching during the year. In like manner the value of the fuel stations was apportioned between the two services on the basis of the amount of coal consumed in each service, and the value of the shops and engine houses was apportioned on the basis of locomotive housings.

There remained, however, a great part of the common property yet to be divided, consisting principally of the main line right of way, roadbed, and the track structures thereon. The parties differed as to the basis for this division, just as they differed as to the proper methods of dividing common expenses of operation. On one thing they were agreed; that any unit of use which will fairly divide the common expenses of operation not due to wear and tear (commonly called the "weather" expenses as distinguished from "wear" expenses) is properly applicable to the division of common property, or, reversing the proposition, if we find the unit of use which will properly divide property, we have in that unit a perfect measure for the division of all items of expense attributable

to depreciation caused by the elements, for the reason that this expense represents only the expenditures necessarily made to take care of that depreciation in the common property. The division of those expenses due to the wear and tear on the property is an entirely different proposition. A proper unit of use for the division of common property may or may not be properly applicable to the division of common "wear" expenses of operation, depending, of course, upon which service causes the major portion of those "wear" expenses.

It was the contention of the plaintiff that the proper "comparable use unit" for the division of common property was found in the Revenue Train Mile, i. e., that the common property should be divided in the proportion of the respective miles run during any typical period of time by the revenue trains, passenger and freight. This ratio, modified as hereinafter explained, assigns for the year 1917, 42.21% of the common property to the passenger service.

As to this "comparable use unit" the defendants' accountants did not agree with the plaintiff's, nor even with one another.

Mr. Thompson, who was defendants' principal accountant on the hearing before the Master, and Mr. Parker, who succeeded Mr. Thompson and who applied in his computation Mr. Thompson's theories, used for their division of common property a ratio which they called the "time" ratio. The general basis of this ratio was the elapsed time of all passenger trains on the road between terminals added up for the whole year as compared with the elapsed time of all freight trains on the road between terminals during the year. An example of this ratio, showing how it is made up, appears in volume V of the record on page 527. This ratio for the year 1917 assigned 23.19 per cent of the common property to the passenger service.

On the other hand, Mr. Hillman, another expert ac-

countant employed by the defendants, used for the division of common property a ratio called the "gross ton mile" ratio. This ratio was arrived at by multiplying the loaded weight of the trains in each service respectively, including their locomotives, by the miles made by those trains; and is illustrated on page 218 of the Hillman exhibit, Vol. VI of the record. This ratio, for 1917, assigned 25.68 per cent of the common property to the passenger service.

Our reason for considering the revenue train mile as the proper unit of use to be used in dividing common property is that every activity in and about a railroad is directed to, or has for its ultimate purpose the carrying in trains of passengers and freight offered for transportation. If there be any other use of the common property than by revenue trains, such use is not only subordinate to but is in furtherance of the use by revenue trains. Each use of the common property by a train is an exclusive use. This is obviously true of any single track railroad.

That the time ratio is not the proper unit of use is, we think, easily apparent. To show the result arrived at by carrying such a theory through to its logical conclusion, it was necessary to propound only one question to the proponent of that theory, Mr. Parker, on his cross examination. This question and the answer thereto appear in the record in narrative form as follows: "Assuming a passenger and a freight train both starting from St. Ignace at the same time, and the passenger train went enough faster than the freight so that it reached Marquette, turned around and went back to St. Ignace, completing the double trip over the road in the same time that the freight train arrived in Marquette on its single trip, according to the time theory the use of the common property by those trains would be the same" (R. p. 1089).

Time may measure rental in a building, because however little the occupants use the property, they have the

exclusive use of it all the time. But in the case of a property such as a single track railroad, which is used in common by two services in order to accomplish for each the ultimate results desired, namely, the movement of passengers or freight over a certain distance, the length of time each uses a certain portion of the property is not an indication of the use, rather it is the reverse of an expression of the use which that service makes of the property.

What the defendants denominate "time of occupancy" is occupancy, not of certain property during a certain time, but of a certain time in accomplishing a certain journey or movement. If a freight train or a passenger train should stand on the common property for days or weeks, it would constitute an actual occupancy, but the time of such occupancy would not here be taken into account at all. It is only train movement that is taken into account, and movement can be measured only by a unit of distance. What the defendants here in reality undertake to measure is not the extent of time of occupancy, but the extent of time consumed in making a movement; an extent which bears no relation to the extent of the movement. To graduate the charge for the privilege of moving a train 100 miles on the common property in proportion to the time consumed in making the movement instead of on that of the distance moved would be irrational. It would be the same in principle as though a toll road company should charge a horse and carriage for a journey of ten miles the same amount that it charged an automobile for a journey of fifty miles, for the wholly irrelevant reason that each journey consumes the same amount of time. In the one case, as in the other, the use, the extent of which is to be measured, is a movement use. The extent of a movement use is an extent in space or distance; and the unit by which such a use is to be measured is therefore of necessity a unit of distance.

It will also be noted that the time basis is found to be

in conflict with the statute itself, which we are here considering, while the distance basis is in harmony with that statute. That is, the statute fixes the rate of fare to be charged, not by the amount of time during which the passenger is on the train, but for the distance for which he is carried, namely, 2¢ per passenger mile. Also, in determining whether or not a railroad comes within the statute it fixes a similar measure, viz., the statute is applicable to those carriers on which the gross passenger train earnings equal or exceed $1,200 not for every hour or other unit of time consumed by the passenger train—but for every mile of road on which passenger trains are regularly operated, without any regard for the time consumed in the movement of such trains.

The vital defect in the theory, on which the gross ton mile ratio, as a unit of use, is based, is that it undertakes to treat a ton of passengers the same as a ton of freight, when there is no such relation, either in the manner in which they are carried or the purpose to be accomplished in getting the passengers and the freight over the road. On the freight side the thing we are trying to accomplish is to move tons, except that we run certain local freight trains which have to be run on schedule regardless of the tonnage. The chief purpose is to move tons, and we move those tons in trains. When we pass to the passenger side, the chief purpose is not to move so many passengers; it is to move over that road on schedule time so many trains upon which passengers may wish to travel at their convenience at certain times of the day or night. If it were a proposition of only moving so many tons of passengers, we could allow them to concentrate at the stations until a sufficient number were obtained, making up a train of twenty or thirty cars and move them all at once; but the purpose we are trying to accomplish there is to accommodate the public, which considers time a necessary element in business; and to operate trains at different times of the

day and night to suit their convenience, regardless of the number of passengers who may wish to travel on one train or another so long as there is sufficient travel to justify the running of these different trains.

ANALYSIS OF RESULTS OF DIFFERENT METHODS OF DIVISION.

In a case of this kind we are all partisans, and being partisans, all of us, counsel as well as engineers and accountants, become interested in certain theories and in making up our computations follow those theories through to an apparently logical conclusion, accepting the result without question, until it is pointed out by some skeptic that although the theories seem logical and seem to have been logically applied, the result obtained is most unusual and improbable. Therefore, it is often wise, before finally accepting the result of an application of our theories, to step back for a moment and look at that result in perspective. Let us do that in the case of the division of our common property.

Both sides have divided the property between passenger and freight, first by allocating to passenger and to freight respectively, all the property used exclusively in each of those services and then by dividing the balance of the property, being that used in common by passenger and freight, upon bases which must, under any conditions, be more or less arbitrary. To see if these bases are proper ones to apply let us see what the results are after the whole amount of passenger property has been set apart. These results are as follows, using the figures of the year 1917:

Ratio used	Total Property	Exclusive Pass.	Pass. proportion common	Total Pass.
Time	$11,875,868	$502,095	$1,745,873	$2,247,968
Gross ton mile	11,875,868	502,095	1,933,104	2,435,199
Rev. train mile	11,875,868	502,095	3,177,812	3,679,907

Considering these results from perspective, let us see how they compare with what is found to be the passenger proportion of property on railroads generally.

Studying the various cases which have passed upon this question of railroad valuation and of the division of property between passenger and freight, including those cases which have been lost by the carriers, as well as those which have been won by them, we find that the passenger property generally runs from 30% to 35% of the total. In the Western Passenger Fares Case, the Interstate Commerce Commission found that for all the Western railroads the passenger property was 31.7% of the total. Looking at the result from this basis, we find that the plaintiff's figures, far from being exaggerated, are conservative in that they assign to passenger, out of all the property, 30.99%. The defendants' result, however, achieved by applying their methods of division, shows a property assignment to passenger, where the gross ton mile ratio is used of only 20.49%, and where the time ratio is used of only 18.9%.

Again, for purpose of comparison, still studying our result from perspective, let us compare the division of property with certain other divisions between passenger and freight, for instance, Revenues. Although the revenue basis is not a proper one for making divisions of property, because revenues are variable and are often the point of controversy, it nevertheless will do no harm and may be of some value to use Revenues for a comparison of this kind. It appears that of the total revenue of the plaintiff in the year 1917, 32.42% thereof was passenger revenue; so that the proportion of property which plaintiff has assigned to passenger, is somewhat less than if it had been assigned on the revenue basis. On the other hand, defendants' assignment to passenger is less than two-thirds of the passenger proportion of the total revenues.

Again, using another basis for comparison, let us take the passenger proportion of the total operating expenses. That, of course, is not an absolute guide, as there are disputes between the parties as to the division of many of the expense items; but in view of the fact that a large part of the expenses are actually allocated, the disputed accounts aggregating only about 20% of the total, the division of operating expenses between passenger and freight will at least serve us for the purpose of rough comparison. Plaintiff's computations assign, out of the total of operating expenses, 33.34% to passenger. Therefore, on this basis the plaintiff's assignment of property values, 30.99% seems conservative. On the other hand, even though the defendants have applied to the divison of operating expenses the same extreme theories which they apply to the division of common property, the result of their computation shows that they have had to assign 28.7% to passenger. Therefore, according to defendants' own theories and computations, the proportion of property which they assign to passenger (20.49% in one case and 18.9% in the other) is not much more than two-thirds of the passenger proportion of operating expenses.

From perspective the plaintiff's divisions of property appear to have the merit of logic in that the results coincide, first, with the passenger proportion of property on other railroads; second, with the passenger proportion of revenue; third, with the passenger proportion of expenses. On the other hand, the results achieved by applying defendants' theories do not coincide at all with what we would expect; they do not coincide with the division of revenues, and they do not coincide at all with even defendants' own division of expenses.

Revenue Train Mile Ratio as Modified.

Plaintiff's first position as to the revenue train mile ratio was to use the proportions of the revenue train

miles as they appeared in plaintiff's operating statistics, without change or modification, but on further consideration, we were able to see that the straight revenue train mile ratio might not be deemed to make proper allowance for the admittedly greater use of the common property in freight switching operations. We, therefore, made up a modified train mile ratio, which we believed gave due effect to the use of the common tracks in switching. This ratio, again modified to meet objections by defendants, was adopted by the Master, and used for the division of common property and common expenses. (Master's report, R. Vol. III, pp. 230-54.)

This ratio at that time was difficult of accurate construction, as the statistics in the record did not show the switching miles made by road engines, and the proportion of the switching miles made on the common tracks could only be approximated. It is apparent that in such a ratio, to be used for the division of common property and common expenses of maintenance thereof, it would not be proper to include switching mileage made on property allocated to freight, the expenses of the maintenance of which have also been allocated.

Since the case was heard by the Master, however, the Interstate Commerce Commission changed its classification of accounts so that certain statistics are now kept which we did not have before, and we now have, for the years 1915, 1916, and 1917, the actual number of miles made by the road engines in switching. Also, in the preparation for the taking of additional testimony in this case, in April, 1917, we were able to make actual tests, for both our road and yard engines, as to the proportion of the switching done by those engines which is done on the common tracks. These tests were made with the cooperation of the defendants and there is no dispute between the parties as to the correctness of the results shown.

We have, therefore, been able to construct, on fairly exact data, a modified revenue train mile ratio which gives due credit to the use of the common property by locomotives in switching. To make up this ratio we added to the passenger revenue train miles the switching miles made by passenger locomotives on common tracks and to the freight revenue train miles the switching miles made by freight locomotives on common tracks, and the result was to give us a true expression of the use, by each service, of the common property which we are dividing.

The detailed computations, by which we obtained this ratio, for each of the years, are shown on page 1 of plaintiff's Exhibit 210 (R. Vol. VII.)

When the trial judge came to pass upon this issue, although he expressed his opinion that the modified train mile ratio employed by the plaintiff was more logical than the ratios proposed by defendants for this division, (R.p.84), he nevertheless adopted for his division of common property the method used by the Interstate Commerce Commission for apportioning common expenses and common property in the Western Passengers' Fares Case, (37 I. C. C. Rep. I), which method of division was referred to by this court in the opinion in the case of *Rowland* vs. *Boyle*, 244 *U. S.* 106. This method was devised by the Interstate Commerce Commission in accordance with the theory that "The fuel consumed by road locomotives drawing trains over the roads; the lubricants, water and other supplies for these locomotives; the train supplies; the wages of train men and engine men are all separated between passenger and freight, and each by itself or the aggregate of all will constitute an index of the utilization of the tracks by these two branches of the service." A ratio made up by proportioning the aggregate of these several accounts would assign to passenger the following proportions in the several years in question: 1912, 36.24%, 1913, 34.88%, 1914, 37.52%, 1915, 41.21%, 1916, 37.36%, 1917, 33.93%.

The following table shows the proportion of the common property assignable to passenger by the use of any one of the several ratios:

	1914	1915	1916	1917
Modified Rev. Train Mile	45.09%	48.65%	44.63%	42.21%
Time Ratio	25.60%	28.21%	24.94%	23.19%
Gross Ton Mile	30.11%	32.06%	27.71%	25.69%
I. C. C. Formula (used by trial judge)	37.52%	41.21%	37.36%	33.96%

Division of Passenger Property Between the Intrastate and the Interstate Business.

After allocating to the interstate business the value of any passenger property used exclusively in that business, the trial court apportioned the remainder of the passenger property, including the passenger proportion of the common freight and passenger property determined as above stated, between intrastate and interstate on the relation of the miles traveled by intrastate and interstate passengers. There was no dispute between the parties as to the correctness of this method.

Taking defendants' values as a basis, the final intrastate property valuation would be as follows, according to whichever ratio was used for the division of common property between passenger and freight:

	1914	1915	1916	1917
Modified Rev. Train Mile	$2,107,926	$2,477,171	$2,306,989	2,600,656
Gross Ton Mile ratio	1,407,549	1,637,990	1,579,830	1,721,006
Time ratio	1,196,950	1,441,150	1,291,574	1,588,639
I. C. C. formula (Method used by trial court)	1,993,453	2,338,289	2,176,466	2,042,114

Division of Revenues and Expenses.

To enable the Court to find what return plaintiff can reasonably expect under the rate complained of, it became necessary to study the return it has been receiving from

its operations in the past. For this purpose there was shown in evidence on the hearing before the Master a full statement of all plaintiff's operations in the State of Michigan for the four fiscal years 1910, 1911, 1912, and 1913, showing the revenues and expenses and the net income. The revenues and expenses were so allocated, apportioned and assigned, first, between passenger and freight, and second, between intrastate and interstate passenger, as to show the net return each year from the intrastate passenger business alone.

Such revenues and expenses and the divisions of the same appear in the Record as Exhibits to the Master's report (R. Vol. III, pp. 468-503).

For the hearing before the Court the plaintiff prepared similar statements of its operations in Michigan for the four fiscal years following 1913, which are plaintiff's Exhibits 206, 207, 208 and 209 (R. Vol. VII). These exhibits are of a similar nature to those introduced before the Master, but, due to a change in the method of keeping the accounts, prescribed by the Interstate Commerce Commission in 1914, plaintiff was able to show the operations for 1915, 1916 and 1917 in greater detail, and, we think, with somewhat greater accuracy.

Defendants' similar exhibits are Exhibit 325 (Vol. V of the Record) and Exhibit 329 (Vol. VI of the Record).

The Court therefore had, for consideration in judging what net return could be expected under the prescribed rate, the detailed results of eight years of plaintiff's operations.

We shall now state somewhat in detail the methods used in the preparation of such exhibits.

Revenues.

There is practically no dispute between the parties as to the revenue accounts or as to the proper method of their division.

The plaintiff's accounts are so kept that the direct revenues, from the carriage of passengers and from the carriage of freight, are allocated, as are also the intrastate and interstate passenger revenues.

There are certain small incidental revenues derived from the property used in the transportation business of the plaintiff which are not allocatable. These have been apportioned between the passenger and freight services on the basis of the direct revenues, this method being the method used by counsel for both parties.

There are certain incidental passenger revenues which cannot be allocated to either the intrastate or the interstate business, and these, together with the passenger proportion of the revenues last mentioned, have been apportioned between intrastate and interstate on the basis of the direct passenger revenues, this method being also used by both parties.

The defendants contend that the revenues from carrying mail and express on passenger trains, together with the expenses attributable to carrying mail and express should be set apart as an outside operation. They therefore do not include revenues from mail and express in their computation of passenger revenues.

This question is discussed later on in this brief.

Operating Expenses.

The operating expenses of the plaintiff are, under the accounting rules of the Interstate Commerce Commission, shown in a large number of primary and sub-primary accounts, under five different groups: (1) Expenses of Maintenance of Way and Structures. (2) Expenses of Maintenance of Equipment. (3) Traffic Expenses. (4) Transportation Expenses, and (5) General Expenses.

Division of Operating Expenses Between States.

These accounts show the operations for the entire line, but as to nearly every primary account, it was possible to allocate the expenditure to the state in which the expenditure was made.

Certain expenditures could not be allocated as between the states, and it was necessary to make an apportionment, to ascertain the amount chargeable to Michigan. Fair methods of apportionment were found, which were used by both parties.

Michigan Operating Expenses.

There was no disagreement worthy of discussion between the parties as to the total operating expenses in Michigan.

Division of Michigan Operating Expenses Between Passenger and Freight.

The Michigan operating expenses of the plaintiff have been in a large measure allocated either to passenger or to freight. For many expenses which it was not possible to allocate, reasonable bases for apportionment have been found which are used by both parties.

We think we are justified in saying that, except for a few small accounts which it is not necessary to discuss, as a decision one way or the other would not affect the issue here, and the three accounts in the group of "transportation expenses" which we shall discuss later, the only important dispute between the parties is as to the division of that group of expenses entitled "Expenses of Maintenance of Way and Structures." The parties agree that the group of "General Expenses" should be divided on the basis of the totals of all other groups, and differ as to results only because of their disagreement on the other groups, the main difference being as stated.

Division of Expenses of Maintenance of Way and Structures.

Of the expenses of Maintenance of Way and Structures, the greater part is attributable to the maintenance of property used in common in the freight and passenger business, a certain part to the maintenance of exclusive freight property, and a comparatively small part to the maintenance of exclusive passenger property.

During the four years whose operations were considered by the Master, the records and accounts of the plaintiff were not so kept that from them the maintenance expenses attributable to these exclusively used properties could be allocated. Methods of apportionment were devised, however, based somewhat upon opinion evidence, by which a certain portion of the total maintenance expenses was assigned to the exclusive freight property and another portion to the exclusive passenger property, and, although the parties did not thoroughly agree in their methods, the results at which they arrived were not far apart.

The general basis used by both parties for apportioning these expenses, was to assume that the cost of maintaining side-tracks was one-third of the expense of maintaining main line tracks, such assumption being necessarily based upon opinion testimony. On this assumption, however, it was not difficult to separate the cost of maintenance of the tracks used exclusively in either service from the total cost of maintaining all tracks.

In the fall of the year 1915 the Interstate Commerce Commission issued an order requiring the carriers to keep their accounts so as to allocate the expenses of maintaining freight property, passenger property and property used in common by both services. This order was received so late that plaintiff was not able to comply with it in the fiscal year 1916 except for the last six months of that year, beginning January 1st, but has complied with it ever

since, and for the whole of the fiscal year 1917 these expenses were so allocated.

The allocations for the six months in 1916 could not be used as a basis for determining the relative proportions of maintenance costs in the other years, or even for the year 1916, as the maintenance costs vary materially in different seasons of the year, considerably less work being done in the winter months.

In preparing our exhibits for 1914, 1915 and 1916, instead of using the method theretofore used by us for assigning the expense of maintenance of the exclusive tracks, we applied to the expenses of those years the information which we had obtained from this actual allocation for 1917 in the following manner: We took for each primary account under the group of expenses of Maintenance of Way and Structures, the proportion of the total expenses in that account which in 1917 was allocated to the exclusive freight service, and applied that proportion to the corresponding account in each of the three preceding years, 1914, 1915 and 1916, thus giving us for each of such years the proper proportion of the expenses to be charged to the Maintenance of Exclusive Freight Tracks. The detail is shown on pages 6 and 7 of Plaintiff's Exhibit 209 (R. Vol. VII).

This method does away altogether with the doubt cast on our former estimates because of their being based on opinion testimony, and solves the problem of apportionment by the actual facts of a complete year's test. Inasmuch as this Court has ruled, in the case of *Rowland* vs. *Boyle* (the Arkansas Rate Case), 37 S. C. Rep., 577, that even a test during two typical months of operations is sufficient in a rate case, we believe that the method we have adopted is the correct one and the only correct method for making an apportionment of these unallocated expenses.

The result of the application of these tests was to show

that, of the total maintenance of way expenses on plaintiff's railroad in 1914, 8.42% thereof was properly attributable to the maintenance of the exclusive freight tracks, in 1915, 7.83%; in 1916, 8.63%; in 1917, 8.92%.

Although the records and accounts of the plaintiff, showing these tests in detail, were at all times available to the defendants, their accountants having spent many months in the general offices of the plaintiff, going over plaintiff's accounts and records in the preparation of the defendants' side of this case, they declined to make use of the figures shown by these tests in the preparation of their exhibits showing their divisions of operating expenses for the four years in question. Instead they applied the same theory which they had used in the preceding years, being the arbitrary method of assuming that the expense of maintenance of one mile of main line track is equivalent to the expense of maintenance of so many miles of side track, except that for their computations in these later years the defendants changed their proportion from 3 to 1, to 2 to 1, thereby assuming that the expense of maintenance of a mile of side track was one-half the expense of maintenance of a mile of main line. On this theory, defendants' accountants worked out what they called an "equated track mile ratio," which assigned out of the total expenses of maintenance of way in 1914, 16.89% to the maintenance of exclusive freight tracks; in 1915 17.27%, in 1916 17.18%, in 1917 17.28%. An example of defendants' method of computing this ratio is shown in the Parker Exhibit, Vol. V of the record, page 8.

When defendants' accountants were asked upon the stand to give their reasons for not accepting the result of these tests as reflected in plaintiff's accounts, they stated that one of them, Mr. Hillman, had investigated the records of the plaintiff and had come to the conclusion that the tests were unreliable and that the figures could not be used as a fair basis for dividing these operating

expenses. In view of this contention, it appears to us necessary to go somewhat into detail to show the methods by which these tests were made, and the manner in which the record of them was kept, the methods and record being described by plaintiff's comptroller, Mr. Delf, in his testimony as follows:

> "Instructions were issued to the various departments to make definite assignments to freight and passenger when making up their monthly expenses. In the case of road maintenance blue print books were made for each section showing the tracks on that section as freight, passenger and common; the common tracks being shown in white, freight tracks yellow and passenger tracks red. The section foremen were instructed each day to keep track of the labor and material used on each class of tracks and report it at the end of the month in their time books; turn the time books in to the departments to compile the final distribution, and in those departments the assignment is made to the various services, freight, passenger or common." (R., p. 1032).
>
> "Defendants' Exhibits 335-336 are blank books furnished the section foremen in which to keep a record of the work done and materials used on tracks of various classes. Exhibit 335 was for their labor and to make a distribution of it to the different classes of work; exhibit 336 was to keep track of the material and make a similar distribution. They are required to enter each man's time and make the distribution of it to services daily. The time was also distributed as to the character of work performed, whether putting in rails, ties or bridges, laying new tracks or putting in other tracks; it is entered under the various primary accounts. In addition it designates whether it is on exclusive freight or exclusive passenger tracks. I have examined many of these reports and found them uniformly correct as far as could be ascertained. Exhibit 336 is a monthly

record showing the material on hand at the first of the month, the amount received and applied during the month to the different classes of services and under the various primary accounts. I do not run across the instance referred to by Mr. Hillman in Section 34, but I found cases where the foreman had entered in the first column, provided for freight, passenger and common, the amount on exclusive freight tracks and possibly in Section 34 he had entered the balance in the next column, which are passenger tracks, when it should have been entered in the third column, common tracks. When those accounts came in for distribution, an experienced man checks the labor with the material, and he can determine whether an error of that kind is made and correct the error. It is evident those corrections were made, as the total amount carried forward to final distribution for all sections for exclusive passenger 'other track material' of the line is only $450., and the error stated by Hillman was $1,528.54 and accrued in 'other track material.' Including roadway maintenance, ties, other track material and track laying and surfacing, the exclusive passenger allocations were but $793. for the year. I have had careful oversight during the year 1917 of the way these reports were received and distribution made. I belive that except for the two errors of under $1,000. to which I called attention in my direct examination, the reports as corrected carefully show the expenses on exclusive tracks in 1917. The errors spoken of are where the blue prints show two tracks as common which should have been shown as exclusive freight." (R., pp. 1052-3).

This method of ascertaining these accounts was, of course, fallible to the extent that it involved the human element, and any one of the section foremen was liable at one time or another to make a mistake; but taking all the

section foremen as a whole, and spreading their reports over a period of a whole year, as was done, we believe that the result which was obtained reflected in a fairly true manner the actual work which was done on the plaintiff's railroad during that year, and a proper allocation of the expense to the different services. We do not believe, therefore, that the defendants were justified in ignoring these records and in proceeding to divide these accounts in a purely arbitrary manner. As this court said in the case of *Rowland* vs. *Boyle,* above referred to, "It is enough to say that the railroad adopted the only practicable mode of presenting its results; that it exhibited its work sheets and data to appellants; that the returns were made by the employees in the course of their business; and that if the appellants had desired to question any of the data, they could have called for further verification."

The extraordinary results obtained from the arbitrary method of assignment adopted by the defendants' accountants are very graphically shown by a comparison of the figures, in the primary accounts to which they applied their arbitrary percentages, with plaintiff's figures for the same accounts, plaintiff's figures being the actual allocation as shown on its books. For instance, using the figures of the year 1917, the aggregate result of division of all the accounts to which defendants' accountants applied their arbitrary percentage, shows an assignment by defendants to exclusive freight of $73,538, as compared with actual allocations on plaintiff's books for those same accounts of $39,686. Again, the amount charged by defendants' accountants against exclusive freight for maintenance account No. 214, "Rails" was $5,888, (R. Vol. V, p. 549), while plaintiff's books show that the actual expense for rails on its exclusive freight tracks in that year was only $318 (R. Vol. VII, ex. 209, p. 6). Certainly the section foremen, even if they were given to

making mistakes on other items of expense, would at least know and report correctly whether they were putting in rails on freight tracks or on passenger tracks or on common tracks.

DIVISION OF COMMON EXPENSES OF MAINTENANCE OF WAY.

The division of these expenses between passenger and freight services is not free from difficulty.

The plaintiff claimed that at least sixty percent of these maintenance expenses are attributable to depreciation of the property from weather and other natural causes, and not more than forty percent are attributable to wear caused by the traffic. The Trial Court found (R. p. 84) that the larger part of these expenses were due to causes independent of use.

As heretofore stated, it is not disputed that the expenses attributable to weather can be properly apportioned on any basis which is fair for the apportionment of the common property between the two services.

It is our claim that this basis is the modified revenue train mile ratio.

As to the expenses which are due to wear, the defendants claimed that by far the largest part is caused by the freight trains, chiefly because of their greater length and weight, and they maintained that these expenses should be divided by the use of what they called the gross ton mile ratio, being the ratio heretofore referred to as having been used by one of the defendants' accountants, Mr. Hillman, for the division of common property.

The plaintiff contended that the wear expense should be divided by the same method used for the division of weather expense, viz: the modified revenue train mile ratio. It was, of course, admitted that the freight trains were longer and heavier, but it was contended that the destructive effect caused by the weight of the freight

trains was not so great per train unit as that caused by the high speed of the passenger trains.

It was demonstrated during the argument that the difference between the two methods contended for as the division of wear expenses was not great, when reduced to dollars and cents, the difference in 1917 being $31,035.

The same facts were brought out in the testimony in this case which were found by the Interstate Commerce Commission in their Western Passenger Fares Case (37 I. C. C. Rep. at p. 12) where the Commission said:

> "The weight and speed of the passenger trains have also necessitated, in the interest of safety, a higher degree of excellence as indicated in the strengthening of the track structures and a certain higher degree of upkeep of the track and structures."

It was shown in the case at bar that this extra cost of maintenance attributable to the passenger service approximated 20%, (R. p. 985). This, of itself, would more than counterbalance the extra expense of maintenance claimed by the defendants to be due to greater destructive force of the freight traffic.

The testimony is undisputed that 2¾% of the time of freight trains on the road is attributable to the delays caused by the preference given to the passenger service to keep the trains in that service on time, as near as may be (R. p. 848). It would follow from this that that proportion of the wages of the freight crews and the fuel, lubricants, etc., used by freight locomotives would more properly be charged to the passenger service, the total comprising a very substantial amount.

There was also undisputed evidence that a considerable amount of cost is attributable to the passenger service on account of freight hauled for its use in freight trains, for which no charge is made (R. p. 963).

On this question of extra costs attributable to the one

service or the other there was, of course, much controversy between the parties and a large amount of testimony was introduced on both sides. We do not believe that ony one hearing this testimony could come to any other conclusion than that the preponderence thereof was in favor of the plaintiff. On this question the Trial Judge said in his opinion:

> "There is much to be said in favor of this basis of division (*i. e.* modified revenue train mile ratio) and, upon the whole record, as against those advanced by the defendants, its use is supported and sustained by the greater weight of the evidence." (R., p. 84.)

In the division of these common expenses of maintenance of way, the defendants' accountants again did not agree with the theories of the plaintiff nor with the theories of one another. For the division of these maintenance accounts Mr. Thompson and Mr. Parker, who followed the Thompson theories, used two ratios. For the division of weather expenses they used their "Time" ratio. For the division of wear expenses, they used their "Gross Ton Mile" ratio. The method in which they applied these ratios was rather unusual, in that they made no attempt to separate the accounts between weather and wear, except in a general way. For instance, if in a certain account it seemed to them that the greater portion of the expense was due to weather they apportioned it all on the time basis (R. p. 848). If on the other hand, in their opinion the cause of the expense was due to wear, they apportioned it all on the gross ton mile basis. For illustration, the acount of "Ties" they divided on the gross ton mile basis, merely because it seemed to them, in their opinion, that the greater portion of the deterioration of ties was caused by the action of the train rather than by weather (R. Vol. V, p. 548). On the other hand,

the account of "Bridges, Trestles and Culverts" they divided on the time basis, on the theory that a greater portion of the deterioration of the bridges was caused by the weather than by the action of the trains (R. Vol. V, p. 546).

Mr. Hillman, on the other hand, except as to a few accounts where he used the train mile basis, such as the account of "Roadway Maintenance", (R. Vol. VI, p. 93) uniformly applied the gross ton mile ratio to the division of nearly ever maintenance account, refusing to differentiate between weather and wear. It was, moreover, his contention that the weather items entered into the account very slightly; and that practically the whole of the maintenance cost was due to the action of the trains. In explaining this, Mr. Hillman said:

> "In computing the gross ton mile ratio, we take each car and each engine and multiply its weight by its mileage made. We multiply each ton by the distance it moves. This is on the theory that the expense of maintenance of the structure to which this ratio was applied is measured by the weight passing over it during the course of the year by the several classes of business. The ton mile is the measure of expense, because in my opinion it causes it." (R. p. 1150.)

Passing, however, from Mr. Hillman's explanation of his theory to a study of his computations, we find a surprising result. It will be remembered that he had assigned, as exclusive freight expenses, 17.28% of all the maintenance expenses as what was claimed by him by careful calculation to be the actual expense of maintenance of the exclusive freight tracks. If, therefore, we follow out, to its logical conclusion, this theory that the gross ton mile measures the expense because it causes the expense, we must expect to find that 17.28% of all the

gross ton miles must have been made on the exclusive freight tracks. No other result could follow if that theory is correct. Yet when we come to study the figures from which Mr. Hillman's gross ton mile ratio is prepared (R. Vol. VI. p. 218) we find that the percentage of gross ton miles made on exclusive freight tracks is not 17.28%, but, on the contrary, is only 4.9%. Therefore one or the other of the theories of Mr. Hillman must be wrong. Assuming, however, that Mr. Hillman was mistaken in his theory that 17.28% of the maintenance expenses were made on exclusive freight tracks and that the figures of plaintiff, 8.92%, were more nearly correct, it is still impossible to reconcile Mr. Hillman's theory with the actual results of his computations.

When the trial judge came to pass upon this disputed issue as to the division of common expenses of maintenance of way, he treated the situation just as he treated the division of the common property. That is, although he stated that the modified train mile ratio, suggested by the plaintiff, was the most logical, he decided not to follow it but to take instead the method adopted by the Interstate Commerce Commission in the Western Passenger Fares Case for dividing common expenses of maintenance of way.

He therefore used the same Interstate Commerce Commission formula used by him for the division of common property in dividing all accounts in the mantenance of way group, for the division of which the modified train mile ratio had been employed by the plaintiff (R. pp. 85-6).

The principal criticism contained in the brief of counsel for the appellants of the method used by the trial judge for the division of these common expenses of maintenance of way, is that the trial judge, in using the ratio, applied it to the whole block of maintenance of way expenses, ignoring the fact that this block of expenses in-

cluded the expenses of maintenance of a large amount of exclusive freight trackage, thereby assigning too little of the maintenance expense to the freight service. As to this, counsel for the appellants are mistaken in the fact, the mistake probably occurring through an assumption on their part that the trial judge in using this ratio applied it in the same way in which it was applied by the Interstate Commerce Commission in the Western Passenger Fares Case, where it was first used. In that case the figures presented to the Interstate Commerce Commission as to property and expenses of operation did not attempt to allocate to the freight service the exclusive freight property or the expenses of maintenance thereof. Therefore, in applying their ratio, the Interstate Commerce Commission applied it, for the division of property values between passenger and freight, to the whole of the railroad property without separation, and for the division of maintenance expenses between passenger and freight, to the whole block of maintenance accounts. It will be seen that in this method of division there was a certain amount of logic, as the expenses of fuel consumed, wages of enginemen and so forth, which made up the basis for the ratio, were occasioned through operations on the exclusive freight and exclusive passenger tracks as well as on the tracks used in common by the two services. In this case, however, the trial judge adopted a course which puts his method beyond criticism by the appellants, by first allocating to the passenger and to the freight services respectively the expenses of maintenance of the exclusive freight and the exclusive passenger tracks as shown in the books of account of the plaintiff from the reports made by its section foreman, as hereinbefore described, and by applying the ratio which he used only to the expense of maintenance of the common tracks.

That this was the method which the trial judge used,

appears very clearly from a study of his opinion and the computations which appear in that opinion.

It is there stated (R. p. 86), "At the request and under the direction and supervision of the Court, expert accountants (one from each side by agreement) have made careful, accurate and detailed computations in which the lesser percentages above stated have been applied, first, to defendants' lowest common property values, wherever time or gross weight percentages have been employed, and, second, to the common operating expense accounts, wherever the modified revenue train mile percentage had been employed, and also to the unallocated portions of the transportation expense accounts: Dispatching Trains, Station Employes and Station Supplies. The necessary changes have been made in all overhead accounts. Defendants' estimates of the values of the railroad property have been accepted. There is no dispute concerning the revenue or the totals of operating expenses. The difference between the parties in the divisions of the expense accounts, not separated, according to the new and substituted percentages, are too small materially to affect the results and, hence, plaintiff's divisions of these remaining accounts have been accepted."

It is clear from the above that the Court applied the percentage only to the *common* operating expense accounts wherever the modified revenue train mile percentage had been employed. A study of the plaintiff's exhibits where this modified revenue train mile percentage had been employed, for example, page 1 of plaintiff's exhibit 209 (R. Vol. VII) shows that that ratio had been applied only to the *common* expenses of maintenance, after allocating to passenger and to freight the expenses of maintenance of the exclusive freight and exclusive passenger tracks, as shown on that page and on page 6 of the same exhibit. As to the method by which the ratio was applied by the trial judge, the plaintiff might have made some

criticism, as it thus appears that the Court was using for the division of common maintenance expenses a ratio which included on one side expenses for operations on exclusive freight tracks, the maintenance expenses of which had already been allocated to freight, but there is certainly no ground for criticism by the defendants and appellants.

EXPENSES OF "STATION EMPLOYEES" AND "DISPATCHING TRAINS."

Apart from the expenses of maintenance of way and structures, the only other expense accounts as to which there was any serious difference in principle between the parties as to the proper method of division were three accounts under the group of transportation expenses, viz: accounts 372, "Dispatching Trains," 373, "Station Employees," 376, "Station Supplies and Expenses." These three accounts contain the amounts paid out for wages of the train dispatchers and of the employees and the supplies and other expenses at the various stations. It was agreed that a method proper for dividing account 373 would be proper for dividing account 376.

It seemed to the plaintiff that as the employees in the train dispatcher's office have almost entirely to do with the running of trains, it was very proper that the expense be divided between passenger and freight on the train mileage basis.

The plaintiff realized, of course, that a certain portion of the dispatcher's time was taken in sending messages as to switching operations, directing the switching out and picking up of cars, etc., and therefore applied to the division of this account not the straight freight mileage, but the train mileage as modified by including the switching miles made on all tracks, bringing the ratio assignable to passenger down to 37.31% for 1917.

In their attitude as to the division of this account, the defendants' accountants were consistent with their attitude on almost all other disputed questions in the case, in that they did not agree with the plaintiff nor with one another. Mr. Thompson and Mr. Parker divided the account between passenger and freight on their time ratio. Mr. Hillman, on the other hand, applied a most complicated method, illustrated on page 238 of his exhibit (R. Vol. VI), in which he divided the account into thirds, and divided one-third of the account on the train mile basis, one-third on a combination between the train mile basis and another ratio which we will refer to later which is used for dividing expenses of station employees, and one-third he assigned altogether to freight.

The account of "Station Employees" includes the wages of all the employees at the different stations on the road. At the larger stations certain of the employees are engaged exclusively in freight work, and other employees are engaged exclusively in passenger work; and the expenses at these stations are kept separately, so that for this account a portion of the expense has already been definitely allocated to passenger and to freight. The remainder of the account represents, for the most part, the wages of the men at the "one man" or "one man and operator" stations, where the employee is engaged indiscriminately in passenger and in freight work.

It was the theory of the plaintiff that this account should properly be divided on the proportion of the mileages of the various trains that passed that property and, realizing that some effect should be given to the work required of those agents and operators in looking after switching operations at the stations, the train mileage was affected by adding thereto the switching mileage made by road trains on all tracks, exclusive freight tracks as well as common tracks.

The defendants' accountants proceeded, however, to

divide the common portion of this account on a most remarkable theory. They ascertained what portions of the account had already been allocated to passenger and to freight and then divided the common expenses upon the proportion of the allocated expenses, as a result of which they succeeded in assigning to passenger, out of the common expenses, only about 12%. That their method was absolutely incorrect is apparent when a study is made of the work at the different stations where this allocated expense occurs. One of these stations is Sault St. Marie, where there is a large amount allocated to freight, for wages of freight employees, and no allocation in that account to passenger. That situation occurs because in that city the plaintiff occupies with another road a union station, and the expenses of the passenger employees there paid by the plaintiff do not appear at all in the account of station employees, but in an entirely other and different account, account 412 "Operating Joint Tracks and Facilities." St. Ignace is another station on the line where there is a large amount of allocated freight expense and a very small amount of allocated passenger. This is a small town of only 2,000 people, the passenger business being very limited and the local freight business being also very limited. But it is the main transfer point on the line, where freight is transferred from the plaintiff's road to the Michigan Central and the Grand Rapids & Indiana railroads, a large force being kept at work there transferring less than carload freight, rebilling and doing all the miscellaneous freight work required at a main transfer point. Therefore the work there is in no way representative of the work at one of the smaller stations on the road where the operator and the agent do work both for passenger and for freight. Another station whose allocated expenses they use for this division is Marquette, which is not only a transfer point for the Lake Superior & Ishpeming and Marquette & Southeastern Railroads, but is also the main division point on the

line, where all freight trains are broken up in the yard before sending them out over the next division, and all less than carload freight consolidated, thus requiring the work of a large freight force, although the passenger business is only such as originates in a small town of that size. Also at Ishpeming the large allocated freight expense is due to the fact that that is the transfer point with the Chicago & Northwestern Railway, and the same facts exist at Houghton, because that is the end of the line and the transfer point with the Mineral Range and the Copper Range Railroads. The work at none of these stations is at all illustrative of the work done at the smaller stations whose common expenses we are here trying to divide.

The Trial Judge, however, did not follow either of the parties in their method of making this division, but proceeded to divide the account on the same ratio used by him for the division of common expenses of maintenance of way, i.e., the Interstate Commerce Commission formula.

The methods used by the plaintiff in assigning expenses between passenger and freight in the years 1914-1917 is shown opposite each primary account in plaintiff's exhibits 206, 207, 208 and 209, and the ratios there referred to are all set forth and described in plaintiff's exhibit 210, all these exhibits appearing in Vol. VII of the Record.

The corresponding exhibits for the defendants constitute Vols. V and VI of the Record.

The methods of division used by the trial judge are shown in his opinion (R. p. 85-6).

Division of Michigan Passenger Operating Expenses Between Intrastate and Interstate.

It was possible to allocate some of the passenger expenses either to the intrastate or the interstate service.

Some have been divided between those services in a manner used by both parties. The remainder, which constitute the greater part of the passenger expenses, cannot be allocated and must be apportioned on some fair basis.

The general basis used by both parties for this apportionment is the relation of the miles traveled by intrastate passengers in Michigan as compared with the miles traveled by the interstate passengers therein. This is the basis used for the division of passenger property between intrastate and interstate, and except as hereinafter noted expresses most truly the comparative use of the property and the relation of the expenses chargeable to the different services.

The testimony in this case, as in all other cases of this character, is most clear and convincing to the effect that it actually costs more per passenger mile to transport an intrastate passenger than one traveling interstate, due in part to the shorter average haul of the intrastate passenger, which in 1917 was 35.30 miles as against an average haul of 115.16 miles for the interstate passenger. Inasmuch as a large portion of the intrastate passengers use for themselves and their baggage one of plaintiff's Michigan stations at each end of their run, while the interstate passengers use only one station in Michigan, the ratio of use of terminals would be nearly 10 to 1 in favor of the intrastate. This terminal expense includes not only the wages and services of the station employees, but the cost of upkeep of the station property. It would also include the element of injuries to passengers getting on and off trains, which on many railroads is a very appreciable item. Also the shorter average haul for intrastate passengers necessarily requires the making of a greater number of stops to take on such passengers and to let them off, which is reflected, in the operating expenses, in the fuel consumption, in the wear and tear on the equipment, and in the wear on the rails. (See Testimony of

McPherson, R. pp. 494-6). None of these elements of extra cost is allowed for in a division between inter and intra on the basis of passenger miles.

That there is such greater cost in the intrastate business to be taken into consideration in the case was demonstrated in the case of *Rowland, et al* vs. *Boyle*, the Arkansas Rate Case, recently decided by this Court. This Court so expressly held, saying:

> "We agree that it is proved that the local expenses are proportionately very much greater than the interstate."

If such fact was true in the case of the St. Louis & San Francisco Railroad, the carrier whose accounts were under consideration in that case, it would be true of every other railroad which carries both classes of passengers on the same train, as does the plaintiff.

While plaintiff's counsel were satisfied that there was this greater cost of carrying intrastate passengers and that the amount of the same was a large item in plaintiff's operating expenses, yet we had to admit that the amount of the same was difficult of demonstration by exact mathematical proof, and rather than to confuse the issue by a lengthy controversy on this point we decided not to carry any factor of extra cost of doing intrastate business into our computations, except as to two primary accounts, "Station Employees" and "Station Supplies and Expenses". These accounts we divided, not on the relation of passenger miles, but on the relation of the number of passengers traveling, intrastate and interstate. Inasmuch as the use of these stations is by the passengers who travel, and, so far as their use is concerned, it is immaterial how long a distance a passenger travels between stations, it would appear most logical that this division should be on the relation of the passengers and not of the passenger miles.

The division of passenger expenses between interstate and intrastate on the straight passenger mile basis for 1917 assigned 70.67% to the intrastate. An assignment of the two accounts above mentioned on the basis, not of passenger miles but on the number of intrastate and interstate passengers traveling in that year, assigned 88.71% to the intrastate.

On the question of the division of these accounts between intrastate and interstate, defendants' accountants again did not agree with the plaintiff or with one another. Mr. Parker assigned these accounts to intrastate and interstate on the straight passenger mile basis, just as he assigned all other accounts. Mr. Hillman, on the other hand, made a most elaborate series of tests and computations in an endeavor to ascertain the exact facts regarding the division of this expense. According to his testimony (R. p. 1152), he sent one of his men to each train for a period of six weeks, with a special stop watch to test the time it took the agent to dispose of a passenger and find out what kind of ticket the man was getting, whether a coupon or a card ticket, or whether interstate or intrastate ticket. From these reports he made an elaborate computation, as a result of which he found that the ratio for division between intrastate and interstate of the station expenses of 1916, the year for which he made the test, should be reduced from 88.78% intrastate, as claimed by plaintiff, to 88.07% intrastate. It is needless to say that we announced on the hearing that we were willing to accept Mr. Hillman's assignment of these expenses.

The Trial Judge in making up his computations followed the method adopted by the plaintiff.

Other Deductions from Income.

Before arriving at the net return of the plaintiff from its railroad business, it is necessary to deduct from the

revenues not only the operating expenses, but certain other items which do not fall under the head of operating expenses; such as hire of equipment, rents paid, interest paid and taxes. Taxes is the largest item and as the railroad property of the plaintiff in Michigan is assessed on the *ad valorem* basis as a whole, there was no dispute but that the proper method of apportionment of taxes is on the basis of assignments of property values. In their exhibits for 1914-1917 the defendants' accountants apportioned taxes on the basis of passenger and freight expenses, but did this only because they had, at the time, no property valuation for 1917 (R. p. 1084).

There is no disagreement between the parties as to these deductions from income.

Estimated Loss under the Act Complained of.

It is the contention of the plaintiff that if the act complained of is put into effect there will be a direct loss in revenues to the plaintiff, amounting to at least the difference between the revenues which are now received, and the revenues which would be received at the 2¢ rate. As a matter of fact the loss would be even greater than that, for the reason that between certain points even lower rates have to be adopted to meet the competition of carriers having shorter lines, and considering excursion fares, special rates of 1¢ a mile for state and United States troops, etc., the revenues received from the intrastate passengers would average under the prescribed rate considerably less than 2¢ per mile.

The plaintiff submitted detailed figures as to this estimated loss for each year, if the act had been in effect, examples of which calculations are plaintiff's Exhibits No. 52, before the Master (R. Vol. II, pp. 1174-8), and plaintiff's Exhibit 205, p. 9 (R. Vol. VI) on the hearing before the Court. These calculations were made by multiplying

by 2¢ the number of Michigan intrastate passenger miles for the year in question, and subtracting the result from the intrastate passenger revenues which were actually received. Due effect was given to children's half fares, to certain hauls of five miles or less, where the act complained of allows more than 2¢ a mile to be charged, and to certain fares via Negaunee and Champion, where revenues greater than three cents per mile are received. The result shows that for each of the years in question the loss in intrastate passenger revenues would have been more than $100,000. In 1917 it would have been $149,748.

It was contended by the defendants that there is a presumption that there would be an increase in travel, on account of the reduced fare, which would be sufficient to overcome any reduction in revenues, and that the Court could not conclude that there would be any loss without putting the rate into effect and learning the result.

The same contention was made and was definitely and decisively disposed of by this Court in its opinion in the case of *Rowland* vs. *Boyle*, above referred to, where the Court said: -

> "The railroad, after getting the actual returns at the 3¢ and 2½¢ passenger rate and the freight rates allowed by the Court, deducted the sums necessary to bring the revenue down to what it would have been had the state rates been followed. It is objected that this does not allow for the increase of travel that would follow the deductions. The railroad replies and the Court below found that the increase is mainly at the expense of interstate revenue when the combined local rates are less than the interstate ones. Whether this exhausts the matter or not, we are of opinion that upon this record the supposed increase is too conjectural properly to affect our conclusion. The direct effect of the reduction is plain,—the remote one is at best a guess."

Realizing that under this rule of law it is not sufficient to guess that there will be an increase of travel which will overcome the effect of the reduction in the rate, but that actual proof must be given that there will be such increase, the defendants undertook to present such proof, offering two witnesses on that point. One of these witnesses was Mr. Henry C. Adams, an economist and a professor in the University of Michigan, who testified (R. p. 1134) that "as a general proposition it is true that the reduction in any price or any rate tends to increase the volume of sales, or in this case the volume of traffic." He testified further that his personal investigation on that subject was limited to what was known as the Michigan Central Charter Case, certain litigation which arose out of the repeal of the Michigan Central Charter, bringing that property from a 3¢ passenger mile basis to a 2¢ basis. He stated that in that case the change in the basal rate was followed by considerable stimulation of traffic, but added: "I want, in fairness to the situation, however, to add that there was in connection with that situation the educational influence of the electric lines that are paralleling the Michigan Central, the education of the public to riding and using trains; so that in honesty, I should hardly like to go on record as saying that all of the increased passenger traffic following the repeal of the charter was due to the change in the price. The reduction of the rate and the education of the public came at the same time, and the education of the public came through actual travel, under reduced rates."

The other witness was Mr. Hillman, who was willing to qualify as an expert on that point just as on all other points in the case, and who testified that in the case of the L. & N. Railroad in Florida the rate was reduced from 4¢ to 3¢, and that following the reduction in the rate the earnings increased very greatly. He was forced to add, however: "I attribute that both to the growth of the coun-

try and the reduction of rates. There has been a steady growth in passenger traffic in Florida during the last decade, though this road is outside the excursion limits or belt" (R. p. 1156).

The testimony of these two witnesses w[illegible] far from sufficient to meet the burden of proof that there will be an increase in travel sufficient to meet the reduction in income due to the decreased rate. As a matter of fact, testimony on that point was altogether unnecessary in this case, for on plaintiff's road we have had, in the past, a complete test on that question. As heretofore stated, this railroad was entitled to charge, under the Statutes of Michigan, and did charge, up to the year 1907, 4¢ a mile for passenger travel. In 1907 the legislature reduced the rate to 3¢ a mile; and the railroad put that rate into effect, and the people of the upper peninsula were thereby given the magnificent opportunity of rushing into travel at the decreased rate. What effect the reduction in rates had on the statistics of travel on plaintiff's road is indicated in the following table, taken from the figures in the Record showing the number of passenger miles traveled on plaintiff's railroad in Michigan during the past fifteen years (R. Vol. II, pp. 1173, 1187; Vol. VII, Ex. 202, p. 6; Ex. 203, p. 7; Ex. 204, p. 8; Ex. 205, p. 8).

Year	*Passengers One Mile*
1902	27,730,780
1903	29,579,008
1904	27,415,002
1905	26,401,713
1906	28,697,476
1907	33,256,965
1908	32,438,206
1909	31,145,196
1910	32,813,258

1911	32,677,027
1912	31,574,678
1913	33,158,849
1914	37,955,679
1915	27,938,289
1916	29,682,083
1917	33,436,338

It will be noted that in 1907, the year in which the rate was reduced, the travel on plaintiff's railroad in Michigan amounted to 33,256,965 passenger miles. As the Act reducing the rate from 4¢ to 3¢ did not go into effect until late in the Summer of 1907, the effect of the reduction would first be seen in the statistics of the fiscal year ending June 30, 1908. If the decrease in the rate had actually stimulated travel, there would have been for that year an increase in passenger miles. On the contrary, it appears that the passenger miles decreased. There was a further decrease in 1909, a slight increase in 1910 and the 1907 travel figures were not reached until 1914. The travel again decreased and not until 1917 did the travel become anywhere near as large as it was in 1907.

Defendants attempted to meet the conclusion to be drawn from the above uncontroverted facts and figures by asserting that although the reduction in the statutory rate was from 4¢ to 3¢, the reduction in the average rate received by the plaintiff was only about two mills, and that this reduction was too slight to stimulate travel. That the reduction in the average rate was only two mills is true; and the reason of it is that prior to 1907 and after that time, a large part of our passengers, being the regular commercial traveling public, were not traveling at the rate of 4¢ a mile, but were traveling on mileage at the rate of 2½¢ a mile. The average rate was also affected by excursion fares, etc. For the man traveling on mileage there was, of course, no reduction; that man will travel any-

way. But for the people who, as the defendants assume, will, for purposes of pleasure throng our depots and mob our trains to get on to travel at the decreased rate, the reduction was complete, from 4¢ to 3¢, every one of these passengers paying 4¢ a mile before and 3¢ a mile after the reduction; and the statistics show that they did not throng our depots or mob our trains to get on them to travel at the decreased rate. As a matter of fact, as the statistics show, they paid absolutely no attention to the reduction.

To obtain sufficient additional revenue in the year 1917 to make up the loss due to the decreased rate if the Act had gone into effect, disregarding the question of added expense by reason of added travel, and disregarding the effect of the reduction in intrastate rates upon our revenues from interstate travel, we should have had to have sufficient passengers to travel 7,847,400 additional passenger miles at the new rate. To do this at the average distance traveled by each intrastate passenger in that year, we should have to carry 212,674 more passengers than we did carry. From where in the upper peninsula of Michigan are these passengers going to come?

It must be remembered and recognized that in the upper peninsula of Michigan there is no large potential traffic to develop. The Michigan Central Railroad, referred to by Professor Adams, goes through a thickly settled country, dotted with good-sized cities and villages, where there is a great traveling public who can be educated and taught to travel. But that is not the case in the upper peninsula of Michigan, which in 1910 had only 325,000 inhabitants altogether, only a portion of whom were on or tributary to plaintiff's line of railroad.

On this question the trial judge said, in his opinion:

> "The two cent rate has not been put into effect on plaintiff's railroad and no tests have been made

to determine whether the resulting reduction in fares would stimulate travel to such an extent as to offset the estimated loss. Under these circumstances, defendants insist that, before plaintiff can be entitled to a decree in its favor, it must have established conclusively not only that the statutory rate is not compensatory, but also, that its enforcement will make impossible any substantial return. This question seems to have been decided by the Supreme Court against the claim of defendants in the recent case of Rowland *vs.* Boyle, 244 U. S. 106-110.

To ascertain the loss in each year which would have resulted from the reduction of fares to two cents per mile, plaintiff has computed the amount of fares at two cents per mile for every mile of travel to which the rate could have applied and has subtracted that sum from the amount actually received under the three cent rate. It is certain that this method of computation is unfair to plaintiff, because, owing to competitive conditions, excursion rates, etc., if the two cent rate had been in force, plaintiff would not have received full two cents per mile for every passenger mile of travel. For example, in 1914, this railroad transported state troops about one million passenger miles at a statutory rate of one cent per mile. In its computations of loss, all of this travel has been included at two cents per mile. Again, in 1907, the state legislature reduced the rate from four cents to three cents. Such reduction of rate did not stimulate travel to an appreciable extent. At all events, as said by the Supreme Court in the case above cited, "The direct effect of the reduction is plain—the remote one is at best a guess." (R. p. 79).

Sleepers and Diners.

The plaintiff owns and operates its own sleeping cars, parlor cars and dining cars, and in plaintiff's tabulations and statements showing the results of its passenger op-

erations during the eight years in question, the sleeping cars, parlor cars and dining cars have been regarded as part of the equipment used in the passenger business of the Company; and their revenues and expenses have been considered as a part of the passenger business.

The defendants, however, for the first time, so far as we have been able to discover, in any rate case, have raised the novel issue that the sleeping and dining car business is an outside operation having nothing to do with the carrying of passengers and against which a full proportion of passenger operating expenses should be charged in computing the net return from the passenger business in judging the effect of the Act complained of. They arrive at those expenses by dividing the passenger trains, by comparative weight units, among (1) passengers and baggage, (2) mail and express, (3) sleepers and (4) diners. Both of their accountants apply this same theory and an illustration of their method is shown on page 522 of the Hillman exhibit, (Vol. VI of the Record), being a computation of their ratio, by which, out of the total passenger operating expenses, they assign 25.58% to sleepers, 14.45% to diners, 14.08% to mail and express and only 47.89% to passengers and baggage.

Applying this ratio, the defendants' accountants claim that in the year 1917 there was a net loss by plaintiff in the operation of its sleeping cars of $107,110; a similar net loss in the operation of its diners of $80,327; and a similar net loss in the carrying of mail and express of $8,599. As a result of these paper losses so charged they find that in that year there was a profit from the carrying of "passengers and baggage" of $539,580, of which profit $385,381 was in the intrastate passenger business. The above figures as to profits and losses are taken from page 259 of the Hillman exhibit (Vol. VI of the Record), and the results shown are both astonishing and puzzling. It there appears (foot of column 2) that the total net in-

come of the plaintiff in that year from all the business on its passenger trains was admittedly only $343,794; but, by the application of these paper losses the net income from the "passenger and baggage" business, thus segregated, was made to be $539,580 (foot of column 6), or a sum 50% greater than all of the net income from the passenger trains. An analysis of these computations shows that if the defendants' contentions are correct, not only could plaintiff stand a reduction in its intrastate passenger rates down to 2¢ a mile (assuming that the interstate rates would remain the same), but that if the rate were reduced to 1¢ a mile there would still be a net income from the "passenger and baggage" business of more than $150,000 after the deduction of all its expenses, and that if the rate were reduced to ½¢ a mile there would still be a net income of over $30,000.

But defendants do not content themselves with apportioning passenger expenses in this way. They also apply the reasoning to the apportionment of the passenger property, claiming that of all the passenger property, including the passenger proportion of the road bed, ties, rails, etc., less than 50% is applicable to the passenger business alone in figuring the net return under the prescribed rate, the remainder being charged to sleepers, diners and mail and express. The final result is that out of a total admitted railroad property in Michigan of $11,875,000 the defendants assign to intrastate passenger only about $900,000 of value. Applying the net income as found by them to the intrastate passenger property as found by them, they easily succeed in demonstrating that in the year 1914 the plaintiff was enjoying a net income from the intrastate passenger business of 51% upon the value of the property employed in that business; and in other years a net income of over 40% upon the value of that property.

It is easily seen that if this theory is a proper one to

apply, no railroad in the United States can hereafter furnish to the public sleeping or dining car accommodations except at the risk of having its passenger rates cut in half by reason of excessive passenger earnings. As a matter of fact, such a rule would altogether prohibit the furnishing of these necessary accommodations.

That such a rule, apart from the question of the extreme results reached by applying it, is not logical as a correct rule of law or economics and is not in accordance with the legislation in the State of Michigan on that subject, is, we think apparent from a brief study of the question.

In the year 1888, the Interstate Commerce Commission, for the first time, prescribed a classification of accounts, according to which the common carriers of the country were obligated to keep their books. In this classification of accounts, sleeping and dining cars were classified as an "outside" operation.

In the year 1914, evidently recognizing the impropriety of the classification, the Interstate Commerce Commission issued an order, modifying the classification above mentioned and directing that thereafter dining cars and sleeping cars should not be treated in the accounts as an "outside" operation, and that the revenues therefrom and expenses thereof should be entered as other revenues and expenses in the railroad operation. This order of the Interstate Commerce Commission is still in effect, and appears in the Record of this case as Plaintiff's Exhibit 94.

It would be merely endeavoring to demonstrate the obvious to attempt at any length to discuss the point that the operation of the dining and sleeping cars are part of the passenger business of the road.

While at their inception these cars were novelties, they are today recognized as part of the ordinary conveniences of railroad travel. Indeed, they could be well

said to be necessities of modern railroad travel. So evident is this that under a Statute which authorized a Public Service Commission to require railroads to provide equipment and service for the comfort and convenience of passenger transportation, the Commission was held justified in requiring a railroad company to operate sleeping cars even upon a branch line, where, with respect to that line, no profit in the operation could be shown. (See State ex rel M. R. Ry. Co. *v.* Atkinson (Mo.) 192 S. W., 86).

In *Chesapeake & Ohio Ry. Co.* v. *Public Service Commission (W.Va.)*, 89 *S. E. Rep.*, 844, under a statute which required all public service corporations in West Virginia to

> "establish and maintain adequate and suitable facilities, safety appliances or other suitable devices, and shall perform such service in respect thereto as shall be reasonable, safe and sufficient for the security and convenience of the public, and the safety and comfort of its employes, and in all respects just and fair, and without any unjust discrimination or preference."

it was expressly held that it is within the power of a public service commission to require, under proper conditions, sleeping car service: the court saying:

> "The terms 'convenient and adequate facilities' are not susceptible of exact definition; they are relative terms, and must be interpreted in the light of the conditions existing at the time of their application, and the habits and customs then prevailing. Facilities for traveling which might have been considered entirely adequate and convenient 50 years ago would certainly not be so regarded now. The introduction and general use by railroad companies

of parlor cars, sleeping cars, dining cars, and vestibule trains have made a public necessity of what would formerly have been considered a great luxury."

It was further held in this case that additional sleeping car service might be required of a railroad company, even though the same could not be given profitably, the court saying that

> "the additional service may not be remunerative within itself is not the sole test of confiscation in such cases. All of the carrier's intrastate earnings from *passenger traffic* must be taken into account in determining that question, and it does not appear that such earnings do not produce a fair and reasonable profit to petitioner."

In support of this proposition the court cites as authority *Atlantic Coast Line* v. *North Carolina Corporation*, 206 *U. S.*, 1; *C. B. & Q. R. Co.* v. *R. R. Com'n of Wis.*, 237 *U. S.*, 220.

The act creating the Michigan Railroad Commission, Sec. 4 (Compiled Laws of Michigan, Sec. 8112, passed in 1909) provides:

> "Every common carrier is hereby required to furnish reasonably adequate service and facilities, and shall provide and furnish transportation of passengers and property upon reasonable requests therefor," etc.

We submit that this language gives not less full power to the Michigan Commission than was given in the Missouri and West Virginia cases referred to.

So well recognized is the fact that sleeping cars are essential to the comfort and convenience of passengers that Mr. Thompson, the expert of the defendants in this

case, testified (R. p. 871) that it would be a very foolish and absurd business policy for the plaintiff to discontinue the operation of these cars.

Moreover, long before 1909 the State of Michigan recognized the operation of sleeping cars by railroad companies as a part of their transportation machinery, and proper to be used for that purpose.

In 1875 the following statute was enacted in Michigan, the same being sections 5252-3 of the Compiled Statutes of 1897:

> "Section 1. The people of the State of Michigan enact: It shall be lawful for any railroad company operating any railroad within this state, to construct or use for the transportation of passengers, sleeping cars, parlor cars, or chair cars for the use of such passengers as may desire to use the same, and such company may make such reasonable rules and regulations concerning the use of these as such company may think proper, and may charge a reasonable compensation for such use, in addition to the regular passenger fares allowed by law.
>
> Section 2. Nothing herein contained shall release any such railroad company from its obligations to furnish first-class passenger cars for the use of the public for the regular passenger fares now fixed by law."

It will be noticed that the Legislature, in this enactment, expressly provided that it should be lawful for any railroad company in Michigan to use sleeping cars, parlor cars or chair cars "for the transportation of passengers." This puts beyond question the fact that the operation of these cars was not an "outside" operation, but that they constituted merely equipment to be used in the passenger business of the Company.

The act further provided in section one, that a rail-

road might charge persons using these cars, a reasonable compensation for such use, in addition to the regular passenger fare allowed by law. Here again is recognition of the fact that these cars are appliances to be used in the passenger business of the company. The charges for the use of these cars are to be in addition to the regular passenger fare; the charges are added, not separated.

The only condition imposed by the Legislature in this Act upon the railroads using sleeping cars, is found in section 2 of the Act, which provides that nothing therein contained should release the railroad company from its obligation "to furnish first-class passenger cars for the use of the public for the regular passenger fares now fixed by law." At that time, passenger fares allowed by law in the Upper Peninsula of Michigan were 5¢ per mile. The Legislature assumed that railroad companies could profitably operate their passenger service, even when furnishing sleeper and parlor cars, while they enjoyed a rate of 5¢ per mile for passenger transportation. In this particular the Legislature was entirely right. Sleeping cars were put upon trains in the Upper Peninsula and were operated without question under this act, while the rate of 5¢ per mile was in force. They continued to be operated without question even under the rate as reduced subsequently, from 5¢ to 4¢ and from 4¢ to 3¢.

The defendants evidently construe the second section of the statute quoted as preventing the consideration of the operation of these cars in the determination of the validity of the rate fixed by the Act of 1911. This is a clear misapprehension of the statute. As was said, at the time the Act was passed, the rate in the Upper Peninsula was 5¢ per mile. The second section of the Act did not refer to any rate which might at any future time be fixed by legislative enactment; on the contrary, the Act was very carefully written to meet the conditions as they then existed, namely the 5¢ rate. It was "the regular passen-

ger fares now fixed by law," that the Act preserved. This was the 5¢ fare in the Upper Peninsula. Inasmuch as the second section is definitely and precisely limited, to the rates in force at that time (in 1875), it needs no further discussion to demonstrate the fact that the contention of counsel for defendant as to the scope of the Act is unsound.

Moreover, with respect to dining cars, there is a further fact throwing light upon this subject. The providing of a dining car service is not only providing a convenience and comfort to the traveling public which is now universally demanded and provided, but it also has an element of eliminating expense of the railroad company which would otherwise become necessary. Passengers must be fed while en route, and in the absence of dining cars, dining stations would have to be provided. To provide stations in a sparsely settled country is expensive, and the stopping of trains and delays incident thereto adds to the expense. Mr. Thompson, the expert of the defendants, testified in this case, saying (R. p. 871), that the plaintiff company could not discontinue the dining car and sleeping car service on its line; "that it would be foolish to attempt it."

Inasmuch, therefore, as these dining cars, parlor cars and sleeping cars are provided by the plaintiff company and used by it in the transportation of passengers, and as they constitute an ordinary, if not a necessary convenience for the traveling public, and inasmuch as the testimony clearly shows the necessity of these appliances in the passenger business of the plaintiff company, it is beyond reasonable question that these facilities and their operations are part of the facilities and operation of the passenger business of the plaintiff company, and in the making up of the showing should be so treated.

That the Legislature which passed the act in question so considered them is apparent from a study of the act

itself. It is there provided that the rate of fare shall not exceed two cents a mile for all companies "the gross earnings of whose *passenger trains,*" as reported to the Commissioner of Railroads, equaled or exceeded $1,200 per mile of road.

In determining what railroads shall come under the act, the Legislature considered the train as a unit, and the aggregate of all the gross earnings of the train per mile, from every source, including the earnings from passenger fares, from excess baggage, from the carriage of mail, express and milk, from sleeping car fares, and from dining car charges, is made the determining factor. Can it be possible that the Legislature, having taken the whole of the gross revenue of the train for the purpose of application of the act, could have intended that in computing the net revenue, the expenses of operation of only a portion of the train should be considered?

If the Legislature had intended to regard the carriage of mail and express and the operation of sleepers and diners as outside operations, is it reasonable that they would have included the gross earnings from carrying mail and express and from sleepers and diners in the measure used for ascertaining what railroads could carry passengers and their baggage at given rates?

The Trial Judge was unable to see any logic or merit in this contention of the defendants, and declined to make any special allowance in his figures for the cost of sleepers and diners as an outside operation. The opinion of the Court on this point was as follows (R. pp. 79-81):

> "It is believed that, in this case, for the first time in the history of railroad rate litigation in this country, the surprising claim has been put forth that, in computing net income and rate of return, no part of the expense of hauling sleeping, dining and chair cars should be included in the passenger operating expenses of the railroad. This contention,

which is urged with earnest insistence, involves the theoretical cutting of each passenger train into sections and charging to the sleeper and diner section a proportionate part, based upon weight, of all operating expenses, without crediting that section of the train with any part of the passenger fares collected. In their computations, defendants have charged to sleepers and diners a proportionate part of each operating expense account (except those in the "traffic" group) including such constant accounts as superintendence, wages of trainmen, and engi nemen, maintenance of fences and crossings, and other of like character. The aggregate of these charges, averaging about $175,000 per year, has been deducted from the passenger operating expenses and set aside and disregarded in obtaining the net income from passenger service. In the last analysis, defendant's theory rests upon the assumption that the railroad company is not required by law to furnish sleeper and diner service and that there is, at all times, sufficient space in the day coaches for the accommodation of the traveling public. If this contention were sound, it is safe to say that no railroad of plaintiff's class in the State of Michigan could hope to win a rate case like the present one. But the contention is not sound. As early as 1875, railroads in Michigan, were authorized by Legislative enactment to use sleeping cars, parlor cars and chair cars for the transportation of passengers and to charge a reasonable compensation for such use in addition to the regular passenger fares allowed by law. 3 How. Stat. (2nd Ed.) Section 6696. That statute has been in force and acted upon for more than forty years. Every railroad of any considerable size in the state is furnishing such service. What formerly may have been a convenience has become a necessity. It is conceded that it would be poor business policy for any railroad to abandon the operation of these cars. In 1911, when the statute here under consideration

was enacted, these conditions had long existed and it must be presumed that the Legislature had such conditions in mind and, in the absence of express declaration to that effect, did not intend to limit, alter or overturn fixed and prevailing methods of railway travel and operation. Indeed, the statute itself empowers the railroad company "to regulate the time and manner in which passengers and property shall be transported" and thus, in express terms sanctions the use of all reasonable facilities for the transportation and convenience of the traveling public. No claim is made that the use of such cars is either unreasonable or unnecessary. It is also probably true that the State Railroad Commission, clothed as it is with broad powers, could compel this plaintiff to operate chair, sleeping and dining cars.

Referring once again to the statute here under consideration, we find that therein railroads are classified upon the basis of the gross earnings of passenger trains. No distinction is made between sleeping cars and day coaches. While this classification is not in any wise controlling of the exact question here presented, it is a recognition of the fact that the operation of these special cars is an integral part of the passenger service from which it cannot be divorced by fine spun theories unknown in actual experience and practice.

A subordinate claim of defendants is that, if the operation of sleeping, dining and chair cars cannot be wholly eliminated from consideration, at least the expense of hauling such cars should be divided between state and interstate business upon the basis of the interstate and intrastate passenger miles traveled therein instead of the interstate and intrastate passenger traffic upon the whole line. Elaborate schedules and tables have been prepared showing the number of interstate and intrastate passenger miles in sleeping cars upon each division of the

road. Upon one division the intrastate travel in such cars far exceeds the interstate, while the reverse is true upon the other divisions. This theory is equally untenable. The passenger train as a whole, with engine, baggage cars and all coaches, is a single unit provided for the transportation of interstate and intrastate passengers indiscriminately and alike. The train is run regardless of whether interstate or intrastate, or both interstate or intrastate, passengers are to be carried. Neither kind of traffic is incidental to or subordinate to the other."

The defendants recognized the extreme results to which the application of their theories leads, but stated that it is incumbent upon the plaintiff, if it wishes to avoid these enormous losses in its sleeping car and dining car operations, to increase its sleeping and dining car charges to an amount sufficient to take care of this loss. Defendants' theory upon which they base their whole argument is that the Legislature in passing the Act specifying the 2¢ rate of fare did so on the assumption that the public, as a whole, desires to travel only in day coaches and without arrangements for meals; and that to those passengers who use the sleeper and diner privileges should be charged a large additional sum, sufficient to take care of this extra cost. When it was pointed out to the defendants that the Interstate Commerce Commission has already fixed a limit for sleeping car fares, above which limit the carrier can no longer charge, the defendants' retort was that there should be, in addition to the ordinary berth fare, a special mileage charge for the privilege of riding in sleeping cars. It has been their contention that the rates of fare fixed in the past for such services have been entirely too low and discriminatory in favor of the interstate passengers, whom they assume are the only people who travel in sleepers, as against the intrastate passengers, whom they assume always travel only in day coaches; and that

if the "public" were in charge of the operation of the railroads, an equitable adjustment of fares would be made to take the place of this alleged inequality.

Let us see what has happened along this line since the hearing of this case in the Court below, for the taking over of the railroads by the Government of the United States and their operation under Federal control have been matters of such public interest that we think this Court will take judicial notice of them. In December, 1917, the Federal Government took over the operation of all the important railroads, and in May, 1918, the Director General filed new passenger tariffs effective June 1. In these tariffs, not only were the rates of fares increased to 3¢ a mile over the whole of the United States, but an extra charge of ½¢ a mile was imposed for travel in standard sleepers and ¼¢ a mile for travel in tourist sleepers, in addition to the regular sleeping car charges. At last the "public" had obtained control and had made this equitable adjustment of fares! But, as so often happens with untried theories, it was discovered, as might have been anticipated, that instead of the theory working out advantageously for the public, it did not so work out, and the excess charge for travel in sleepers was discontinued within six months after it had gone into effect. Again the methods of operating under private management, learned through long experience, were demonstrated to have been based on sound principles, not only of corporate policy, but of public policy.

Mail and Express.

Plaintiff hauls on its passenger trains certain cars for the carrying of the baggage of its passengers; and on such cars it also carries mail and express. For the carriage of mail, the plaintiff receives certain revenues at rates fixed by the Federal Government. For the carriage of express, plaintiff receives from the Express Company

a certain proportion of its gross revenues from the express business on that line. Plaintiff's express business is let out to competitive bidders and the revenues it receives therefrom are the best revenues which it is able to obtain for the service which it gives to the express company. Plaintiff is not a common carrier of either mail or express.

The mail and express business is done on passenger trains and with very little extra expense to the road by reason thereof, as the mail and express is all carried in cars which have to be hauled on the trains anyway for the carriage of the baggage of the passengers. Plaintiff's method of handling the mail and express business, as an accounting proposition, has been to consider the mail and the express revenues as passenger revenues, and to apportion them between intrastate and interstate passenger on the basis of the relation of the other intrastate and interstate passenger revenues. No separate account is kept of mail or express expenses (in fact it would be quite impossible to keep any such separate account) and all the expenses of the passenger trains, as well as all the revenues from the passenger trains are assigned into the passenger accounts, a method very fair to the defendants, as the revenues from that business are much greater than the extra expenses occasioned thereby.

The defendants claimed that the hauling of mail and express on plaintiff's passenger trains is a separate business in itself and that its revenues and expenses could not be properly included in plaintiff's passenger operations in determining the net return from the rate complained of. They insisted that the proper proportion of all passenger operating expenses should be assigned to the mail and express business, using as a basis the proportion of the space in the train occupied by and used for that business, worked out in terms of tons by means

of the figures used by defendants in computing their gross ton mile ratio for the division between passenger and freight. On this basis the defendants figured that out of the total passenger operating expenses in 1917, 14.68% thereof, or $77,743 (R. Vol. V. p. 712), was assignable as the expense of carrying mail and express. Defendants include in this sum not only 14.68% of all train expenses, but also 14.68% of the expenses of maintaining the road bed, general expenses, etc. (R. Vol. V. pp. 543-668). These expenses, as thus computed, were $8,616 in excess of the mail and express revenues (R. Vol. V. p. 712); so that the plaintiff was carrying mail and express during that year at a large loss. If the defendants had divided the operating expenses between passenger and freight in the same manner as they were divided by the plaintiff, thereby assigning a greater proportion to passenger, the loss in the mail and express business would have been even larger, amounting to about $18,000 in 1917. The defendants also, before figuring out their return on property values, deduct from the total passenger property, including the road bed, ties, rails and the whole track structure, about 14% thereof, which they charge to mail and express as property devoted to that business, on the same theory of direct apportionment.

The Master agreed to this contention of the defendants and made a separate assignment of the mail and express business, deducting the revenues from such business from the plaintiff's passenger revenues and deducting from plaintiff's passenger operating expenses the amount which the defendants' theory and ratio showed should be deducted, including the deduction of the proportionate amount of the taxes. These separate computations for the mail and express business are shown in the Master's Report (R. Vol. III pp. 297-301).

The plaintiff, in the computations which it presented to the Court of the operations of the four subsequent

years, followed this method adopted by the Master, protesting at the same time that the method was unsound and illogical. The Trial Judge agreed with plaintiff's contention in this regard (R. p. 81).

This question now coming on in this Court, we shall present here somewhat briefly the argument which we made before the Trial Judge.

Every railroad, or at least this railroad, in undertaking the mail and express business is faced with this problem: It has a passenger train, which runs on regular schedule and must run every day regardless of how many passengers there are to take such train, if there is an average number of passengers more than sufficient to pay the cost of operation. It has a baggage car on which it must carry the baggage of those passengers; and it is offered an opportunity to obtain some additional revenue by carrying mail and express in those baggage cars. There is not sufficient mail and express business to allow the running of special trains for its accommodation. If it cannot move on passenger trains, it cannot move at all; and it has to be carried on passenger trains because the express business cannot compete with the freight business, if carried on freight trains; and because the Government would not be satisfied with slow freight service for the carrying of mail. In considering the question as to whether the railroad can afford to take on this extra business, the railroad officials consider it only from the business standpoint of how much it will increase the expenses. If they find from their study that it will not increase the expenses to an amount greater than the additional revenue, and will not delay or hinder the passenger traffic, they accept the business, consider all the earnings as passenger earnings and make no attempt to separate the extra expenses which there may be, due to this traffic. It is obvious that if every proportionate part of the cost of running the passenger trains is charged

against these mail and express operations upon a tonnage basis, the business cannot pay. If, however, the business is treated as a by-product of the passenger business, the extra expense of which is very small, the revenues from that business thereby become so much added revenue for the road; and the business is a profitable one to accept.

The mail and express revenues are on a par with other incidental revenues of the road. For instance, the plaintiff derives a small revenue from the carriage of milk on passenger trains. Because of its desire to serve the public, and because milk as a commodity cannot afford to pay a high rate, the charge made for the carriage of milk is a very reasonable one; but if the cost of carrying that milk should be charged up against the passenger service on a direct weight basis, it would be impossible to carry it except at a tremendous loss. Another example is the revenue which the plaintiff derives from allowing the Union News Company the right to use its trains for the selling of newspapers, magazines, candy, etc. The newsboy occupies a considerable space in the trains, considering the one or two seats in the smoker which he uses for keeping his supplies and the constant use which he is making of all the coaches in the train going up and down the aisles, and if the direct cost of transporting that newsboy should be charged against him on a basis proportionate to the use which he makes of the train, compared with the use made by the ordinary passenger, the expense charged against that newsboy would be so great that the News Company would have to abandon its concession. It is apparent that the railroad by abandoning the milk business and giving up the newsboy concession would gain nothing whatsoever and would lose this amount of revenue. We think it would appear logical to any railroad operating official that it would be wise for him as a business proposition to accept mail and express and milk

business and to grant a news concession. But if by accepting this business he is compelled to lower the fares paid by passengers to a rate such that the passenger will not be compelled to pay any more per unit of weight or space on the train than is paid by the mail or express or the milk or the newsboy, the whole passenger business becomes a losing proposition.

It was argued against our position that this Court had decided in the so-called Lignite Case, *Northern Pacific Railroad* vs. *North Dakota*, 236 *U. S.* 585, that every portion of the traffic must bear its own proportion of the expense.

This argument appears plausible until we study just what question was litigated and decided in the Lignite Case. That action was one brought by the Northern Pacific Railroad against the State of North Dakota to enjoin the State from making the railroad carry lignite coal at rates fixed by statute, on the ground that the rate fixed was too low. This court agreed to that contention and held that the railroad could not be compelled to carry that traffic at an unremunerative rate, even if it was more than the "out of pocket" cost; but they expressly stated that they did not mean by their decision to hold that all traffic must be carried at the same rate.

In view of this statement let us assume that in the Lignite Case the issue instead of arising in the way in which it did, had arisen in another way. Assume that the managers of that railroad had carefully considered that lignite traffic; had found that it was a large traffic, but one that would have to move at a very low rate because of its being a very low grade commodity; that it would move at convenient seasons of the year, when there was much idle equipment, and would bring in considerable revenue, more than the extra "out of pocket" cost; and, upon all these considerations, had decided to accept the business; and the shippers of wheat had then brought

an action before a Commission to have their rates reduced on the ground that the railroad was not charging for the lignite traffic the full proportionate cost of the carriage. Could these shippers of wheat have succeeded in having the court reduce their rate so that they could have their wheat carried at the same rate as the lignite? Such a ruling would alter the whole theory of the making of freight rates, which theory is that rates must be made to suit commodities. On plaintiff's railroad there is a very considerable log traffic and a large coal and ore traffic, all of which must be carried at low rates in order to allow the commodity to move. For the carriage of flour or refined copper and merchandise, much higher rates are charged. Can the shippers of merchandise and of flour and of copper have their rates reduced on the theory that the plaintiff does not apportion to the log traffic the whole pro-rata expense per ton for carrying it? We do not think that the defendants themselves would ever make that claim. But in apportioning to the carriage of mail and express the same pro-rata expense that they apportion to carriage of passengers, they attempt to establish a claim that is just as illogical as the one above suggested. They arbitrarily assume that a ton of mail or a ton of express is the exact equivalent of a ton of passengers, utterly ignoring such fundamental principles of rate-making as the nature of the traffic; the manner in which it moves; the risk involved; the value of the commodity, and the ability of the traffic to stand the rate; all of which things must be taken into consideration in making up commodity rates.

It seems to us that in a case of this kind the mail and express business must be treated in either one of two ways. (1) Having first figured that the revenue derived from the business is more than the "out of pocket" cost, so that there is no direct loss on the business, to give the passenger business the credit of all these mail and ex-

press revenues, and consider all expenses as passenger expenses, just as plaintiff did in its original computations. If such a course is followed no claim can be made that the passenger business is in any way harmed, but on the contrary, it is clear that the passenger business cannot but be helped to the extent of the addition in revenues over the additional expenses. (2) By finding some other method of apportioning expense between passenger and mail and express than by a comparison of tons. The rate to be charged for carrying passengers and the rate to be charged for carrying express can no more be fixed at the same amount per ton than could the same rate per ton be logically fixed for carrying coal and carrying silk. If any jurist or economist has ever devised a logical basis for apportioning expenses of carrying express and carrying passengers on the same train we are unable to find it set forth in any book, treatise or judicial opinion, nor have we ourselves been able to discover any such basis.

We believe, on the other hand, that if defendants' theory of apportionment were ever made a rule of law and passenger rates were adjusted accordingly, there would be no railroad in the United States which would not have to abandon its mail and its express business as an unprofitable and losing proposition.

We submit that whether mail and express shall be carried on passenger trains and the rates to be charged for such carriage, are matters resting in the sound judgment and discretion of the operating officials of the road. Unless it is shown that the judgment has been so unwisely exercised that serious wrong is being done to the public, it is not for state officials to lay down other rules or to substitute their own judgment for the judgment of the owners of the property, who are presumably operating it with due regard to their duty to the public.

As to how mail and express shall be treated in this

particular case, we would refer again to the statute in question, which provides that in determining what railroads shall be limited to the two cent rate, the gross revenue per mile from all *passenger trains* (including therein the revenue from mail and from express) is made the determining factor.

MINERAL RANGE RAILROAD.

Certain of plaintiff's trains are run from Houghton, the terminus of one portion of plaintiff's line, to Calumet, over the tracks of the Mineral Range Railroad. The latter railroad is a separate corporation, about 51% of the stock of which is owned by the plaintiff, but is separately managed and separately operated. Calumet, though not itself a large town, is, by reason of its position in the center of the copper mining district, the largest center of population and of potential passenger traffic in the upper peninsula. Originally the Mineral Range Railroad ran its own trains from Houghton to Calumet; but about fifteen years ago the construction of a parallel electric line diverted so much of the local traffic that the operation of trains between such points was no longer profitable and the railroad abandoned such operation. In order therefore, for the plaintiff to get the traffic from Calumet, it was necessary either to depend upon the people coming to Houghton over the traction line and there taking plaintiff's road or for plaintiff to make an arrangement whereby it could run its trains to Calumet over the Mineral Range tracks. The first proposition was altogether unbusinesslike, for the reason that there is running from Calumet to Chicago a competing road, the Copper Range Railroad, connecting with the Chicago, Milwaukee & St. Paul Railroad, making a through competitive line to Chicago and to southern Michigan via Chicago, such line also reaching other points in the upper peninsula of Michigan

in competition with plaintiff's line. Therefore an arrangement was entered into by the plaintiff with the Mineral Range Railroad by which plaintiff was allowed to run its trains from Houghton to Calumet for the purpose of obtaining this traffic. The first arrangement was for the plaintiff to pay the Mineral Range Railroad a certain fixed rental for the use of its tracks. Later this arrangement was changed so that in lieu of a fixed rental the Mineral Range Railroad is given all the passenger revenues which are derived from travel over its tracks, including the local travel between Calumet and Houghton and the proportionate amount of the charge representing the through travel, with a guaranty that those fares shall in no year amount to less than a certain sum fixed as a fair rental for the trackage rights.

Certain connections of the plaintiff, the Chicago & Northwestern and the Chicago, Milwaukee & St. Paul railroads, were also anxious to reach Calumet. Therefore the Chicago & Northwestern railroad entered into an arrangement with the plaintiff whereby a train could be run straight through from Calumet to Chicago, and from Chicago to Calumet. The Chicago & Northwestern railroad hauls the train from Chicago to Ishpeming, and there delivers it to the plaintiff, which takes the train with its own locomotive and train crew, but with all the rest of the Chicago & Northwestern equipment, through to Calumet, and on the return trip delivers the train again to the Chicago & Northwestern railroad at Ishpeming. In a similar manner, the Chicago, Milwaukee & St. Paul railroad hauls a through train up from Chicago to Champion, delivers it there to the plaintiff, which takes the train on to Calumet and on its return delivers it to the Chicago, Milwaukee & St. Paul railroad again at Champion. For hauling these two trains to Calumet and back each day over its tracks, plaintiff obtains not only the use of their foreign equipment, but also obtains all the

passenger fares collected for travel on its lines, including all the local fares and its proportion of the through fares, and in addition, each of the foreign railroads pays it a bonus for running such trains; the aggregate of which amounts to over $14,000 a year, all of which goes into plaintiff's passenger revenues. It was shown that if the trains of plaintiff ran only to Houghton and did not go through to Calumet to reach this large center of potential traffic, such arrangements would not be made by the connecting carriers, nor the bonuses paid (R. pp. 1156-9).

The great advantage which the plaintiff obtains from running its trains through from Houghton to Calumet, aside from the use of this foreign equipment and the bonus paid for the foreign trains, is that it is thereby able to obtain a large part of the traffic destined from the copper country to the lower peninsula of Michigan, in competition with the three routes via Chicago. A passenger from Calumet desiring to go to Detroit can go by any of four routes. He may go via the Copper Range and the Chicago, Milwaukee & St. Paul via Chicago, not touching plaintiff's lines at all. He may go via plaintiff's lines as far as Champion, and from there to Chicago via the Chicago, Milwaukee & St. Paul. He may go via plaintiff's line to Ishpeming and from thence via the Chicago & Northwestern Railroad to Chicago. Or he may go via plaintiff's railroad across the straits of Mackinac to Mackinac City and thence by the Michigan Central Railroad to Detroit. On any of the three first named routes the passenger will be compelled to cross the city of Chicago after his arrival there, to get his connection to Detroit, while if the fourth named route is taken, he can at Mackinac City make the connection by stepping across from one train to another, a very potent argument in soliciting the traffic of women and children. If the passenger takes this last named route the plaintiff gets the haul for almost the whole length of its line.

The plaintiff, in presenting the results of its operations in this case, has, as a matter of course, included among its operating expenses the expenses of running these trains from Houghton to Calumet, and has included in its revenue statements the revenues derived therefrom. The defendants raised no question as to this on the hearing before the Master. When presenting their figures before the Court, however, the defendants made the claim that the plaintiff should not be allowed to charge in its operating expenses any of these expenses for running its trains from Houghton to Calumet; and in their computations they made a deduction from plaintiff's operating expenses of nearly $20,000 to cover what they claimed was this unauthorized outlay. The distance from Marquette to Calumet is about 98 miles, from Houghton to Calumet about 14 miles, and the method of apportionment adopted by the defendants' accountants was to apportion to operations on the Mineral Range Railroad 14/98 of the train expense from Marquette to Calumet, amounting, as before stated, to nearly $20,000 annually.

The Trial Judge disposed of this question in his opinion as follows (R. p. 78):

> "The claim is that in computing net income, this sum of about $20,000 should be deducted from plaintiff's operating expenses. This contention is untenable. Plaintiff's contract with the Mineral Range Railroad Company is in effect a lease of the right-of-way for passenger trains from Houghton to Calumet in consideration of the passenger fares collected upon that part of the line. Plaintiff's purpose in making the contract was to secure traffic upon its own rails. If plaintiff had leased the right-of-way for the sum of $20,000 and had collected and retained the passenger fares, no question could arise as to its right to include in its operating expenses the rental so paid. Viewed from another standpoint,

this expense is similar to that of advertising and of commissions to outside agents to obtain traffic. No question is raised as to the right to include such charges in operating expenses. Moreover, it appears from the Record that plaintiff receives from the Chicago & Northwestern Railroad Company and the Chicago, Milwaukee & St. Paul Railway Company the sum of $14,000 per annum in addition to passenger fares for hauling the trains of those companies over plaintiff's line to Houghton and thence to Calumet. The main consideration for the payment of this money is to enable those companies to reach Calumet. In computing plaintiff's net income, this sum of $14,000 has been included in its earnings."

Western Division.

South Line from Marquette to Ishpeming.

As shown on the map appearing as the frontispiece of this brief, plaintiff's railroad runs west from Sault St. Marie to Nestoria, where one portion of it branches up to the copper country and the other portion goes straight west as a through line to Duluth. This line from Nestoria west is called the Western Division, and the strange claim is made by the defendants that in computing the revenues and expenses and property of the plaintiff in connection with this case, we should not consider the operations on the Western Division, for the reason that it appears that the operations on that division, so far as the intrastate passenger business is concerned, are not profitable.

In reference to this contention we shall say, in the first place, that if it were not for the through business which we get by the operation of that division of the road, the railroad might as well go out of business. In the second place, if we should at any time attempt to abandon intrastate passenger business on that division, there would

be such a protest from all settlers along that road that the Michigan Railroad Commission would, under their powers, compel us instantly to resume the service.

When the stockholders of the railroad undertook to construct that Western Division, they were authorized under the statute to charge 5¢ a mile for the carriage of Michigan passengers; and there is no question that if the railroad were allowed today to charge at that rate, the operation of that division would be in itself profitable. In this respect this case is much different from the Arkansas Case cited by defendants, where a railroad constructed an unprofitable branch under an existing rate and then in subsequent litigation claimed that the rate was confiscatory.

The same arguments are applied by defendants to the so-called South Line, which extends from Marquette to Ishpeming.

These arguments are all effectively answered by the trial judge in his opinion (R. p. 77-8):

> "The so-called Western Division (Nestoria to the State Line) of plaintiff's line was originally built as a connecting link and primarily to create a through interstate road. This part of the railroad runs through a sparsely settled region and the local traffic thereon is considerably less than that upon other divisions of the system. Here the interstate traffic exceeds the intrastate. However, the traffic of both kinds has continuously and substantially increased. Defendants claim that the loss, if any, in plaintiff's passenger business has occurred upon this division and contend that the operations thereon should be segregated from the operations upon other divisions and the loss charged mostly, if not wholly, to interstate business. They further claim that it was incumbent upon plaintiff to make such separation and, not having done so, it has failed to establish with sufficient certainty any right to relief.

The so-called South Line extends from Marquette to Negaunee and Ishpeming and was originally built by an independent corporation as a competing road. In 1884, after it had been operated for about one year, one of plaintiff's predecessors purchased this line. Since then it has been used continuously for both interstate and intrastate passenger and freight traffic. Its use in connection with the main line provides substantially a double tracked road between those cities. Defendants claim that the South Line is unnecessary so far as intrastate traffic is concerned and contend that both the revenues derived therefrom and the expenses incurred thereon should be eliminated from the computation in this case.

These contentions are effectually answered by the rate statute itself, which provides "That in computing the passenger earnings per mile of any company, the earnings and mileage of all branch roads owned, leased, controlled or occupied, or that may hereafter be owned, leased, controlled or occupied by such company, * * * shall be included in the computation, and the rate of fare shall be the same on all lines owned, leased, controlled or occupied by such company". Plainly, no division or branch, used for intrastate traffic can be segregated from the other parts of the line or omitted from consideration in determining whether a statutory rate is confiscatory or sufficiently compensatory. The Legislature, in fixing the rate of passenger fares, has seen fit, at the same time and in the same statute, to require the entire railroad line to be treated as a single unit. Under this statute, if the net income derived from plaintiff's intrastate passenger business as a whole is sufficient to yield a fair and reasonable return upon the value of the property employed in that service, it cannot recover, even though it may have suffered serious loss upon one or more divisions of its road. On the other hand, if the net income de-

rived from its intrastate passenger business upon its whole road in Michigan is insufficient to yield a fair and reasonable return upon the value of the property employed in that service, it is entitled to a decree, even though such business upon one or more of its divisions may have been profitable. Court decisions upon rate statutes containing no such provisions have little application and are not controlling here."

NET RESULTS FROM PLAINTIFF'S INTRASTATE PASSENGER OPERATIONS.

Applying to the division of operating expenses and income the same view from perspective which we employed in studying the results of the different methods of dividing common property, let us step back and see how the results of the divisions, as made by the plaintiff and by the defendants, compare.

The following table shows this comparison. The figures making up this table are taken from the Record, as referred to in the foot notes, most of the figures in the first table being taken from plaintiff's Exhibit 220 (R. Vol. II, pp. 1191-1199), and in the second table from the Parker (defendants') exhibit (R. Vol. V, pp. 160, 330, 518 and 712). As a basis for making the comparison, we take the property valuation as claimed by the defendants and the division of the same between passenger and freight as made by the trial judge.

1914	Plaintiff Total Mich.	Freight	Passenger
Defendants' Valuation	$11,674,752[2]	$8,593,129[3]	$3,081,623[3]
Actual Net Income	417,869[3]	165,398[4]	252,471[4]
Percentage on Value	3.57%	1.92%	8.20%
Estimated Loss	196,046[9]		196,046[9]
Net Inc. after deducting loss	221,823[4]	165,398[4]	56,425[4]
Percentage on Value	1.67%	1.92%	1.96%
1915			
Defendants' Valuation	11,697,474[3]	8,370,131[3]	3,327,343[3]
Actual Net Income	405,948[3]	270,167[3]	135,781[3]
Percentage on Value	3.47%	3.10%	4.08%
Estimated Loss	167,535[10]		167,535[10]
Net Inc. after deducting loss	238,413[3]	270,167[3] Def.	31,754[3]
Percentage on Value	2.01%	3.10%	0%
1916			
Defendants's Valuation	11,526,134[3]	8,452,464[3]	3,073,670[3]
Actual Net Income	767,753[3]	574,757[3]	192,996[3]
Percentage on Value	6.67%	6.80%	6.29%
Estimated Loss	176,641[11]		176,641[11]
Net Inc. after deducting loss	591,112[3]	574,757[3]	16,355[3]
Percentage on Value	5.14%	6.80%	.53%
1917			
Defendants' Valuation	11,875,868[3]	8,986,220[3]	2,889,648[3]
Actual Net Income	732,084[3]	519,617[3]	212,467[3]
Percentage on Value	6.15%	5.78%	7.37%
Estimated Loss	218,234[12]		218,234[12]
Net Inc. after deducting loss	513,850[3]	519,617[3] Def.	5,767[3]
Percentage on Value	4.31%	5.78%	0%
Average 1914-1917			
Defendants' Valuation	$11,693,557	$8,600,505	$3,093,052
Average Net Income	580,913[3]	382,485[3]	198,428[3]
Percentage on Value	5.00%	4.26%	6.42%
Average Net Inc. after deducting loss	391,299[3]	382,485[3]	8,814[3]
Percentage on Value	3.34%	4.26%	.28%

1 (R. p. 1147)
2 (R. p. 86)
3 Difference bet. 1 & 2
4 (R. p. 1191)
5 (R. p. 1192)
6 (R. p. 1193)
7 (R. p. 1194)
8 (R. p. 1195)
9 (R. Vol. VII Ex. 202 p. 11)
10 (R. Vol. VII Ex. 203 p. 11)
11 (R. Vol. VII Ex. 204 p. 13)
12 (R. Vol. VII Ex. 205 p. 9)

1914	Defendants Total Mich.	Freight	Passenger
Defendants' Valuation	$11,674,752[1]	$8,593,129[3]	$3,081,623[3]
Actual Net Income	425,741[4]	48,401[4]	394,442[4]
Per Cent on Value	3.64%	.56%	12.80%
Estimated Loss	196,046[5]		196,046[5]
Net Inc. after deducting loss	229,695	48,401	198,396
Per Cent. on Value	2.65%	.56%	6.44%
1915			
Defendants' Valuation	11,697,474[1]	8,370,131[3]	3,327,343[3]
Actual Net Income	448,437[6]	198,437[6]	266,117[6]
Per Cent. on Value	3.84%	2.37%	8.00%
Estimated Loss	167,535[7]		167,535[7]
Net Inc. after deducting loss	280,902	198,437	98,582
Per Cent. on Value	2.40%	2.37%	2.96%
1916			
Defendants' Valuation	11,526,134[1]	8,452,464[3]	3,073,670[3]
Actual Net Income	778,109[8]	483,195[8]	311,047[8]
Per Cent. on Value	6.76%	5.71%	10.12%
Estimated Loss	176,641[9]		176,641[9]
Net Inc. after deducting loss	601,468	483,195	134,406
Per Cent. on Value	5.22%	5.71%	4.37%
1917			
Defendants' Valuation	11,875,868[2]	8,986,220[3]	2,889,648[3]
Actual Net Income	781,350[10]	434,019[10]	364,997[10]
Per Cent. on Value	6.56%	4.85%	12.62%
Estimated Loss	218,234[11]		218,234[11]
Net Inc. after deducting loss	563,126	434,019	146,763
Per Cent. on Value	4.73%	4.85%	5.05%
Average 1914-1917			
Defendants' Valuation	$11,693,557[1]	$8,600,505[3]	$3,093,052[3]
Average Net Income	608,409	291,238	334,150
Per Cent. on Value	5.20%	3.39%	10.81%
Average Net Inc. after deducting loss	418,797	291,338	144,537
Per Cent. on Value	3.59%	3.39%	4.67%

1 (R. p. 1147)
2 (R. p. 86)
3 Dif. between 1 & 2
4 (R. Vol. V p. 160)
5 (R. Vol. VII Ex. 202 p. 11)
6 (R. Vol. V p. 330)
7 (R. Vol. VII Ex. 203 p. 11)
8 (R. Vol. V p. 518)
9 (R. Vol. VII Ex. 204 p. 13)
10 (R. Vol. V p. 712)
11 (R. Vol. VII Ex. 205 p. 19)

Applying our view from perspective, let us consider what railroad statistics ordinarily show the comparative earnings to be from the passenger and from the freight sides of the business. Such statistics show that the passenger and the freight services, using the property in common, as they do, each service charging as high rates as the mangers of the railroads are able to get out of the traffic, are ordinarily carried on with about the same degree of profit, and if there is any difference in the profit earned it is usually in favor of the freight service. It has been found by the Interstate Commerce Commission in many cases, particularly in the so-called "Five Per Cent Case" (31 I. C. C. Rep. 351) that the passenger business on most railroads is less profitable than the freight business.

Examining the plaintiff's figures, as shown in the above table, it is seen that, based on defendants' claimed property values, for the average of the four years 1914-1917, the plaintiff's net income from all its operations in Michigan was 5%; from its freight operations 4.26%; from its passenger operations 6.42%. These are the figures for the actual operations under the old rate and do not take into consideration the estimated loss. If we figure the estimated loss, we find that the plaintiff would have received from its total business in Michigan only 3.34%; from its freight business 4.26%; and from its passenger business .28%. Therefore the results shown by plaintiff's method of divisions do not appear to be at all disproportionate as regards the net income from passenger and from freight. In fact, they indicate that the plaintiff in its divisions has been more than fair to the passenger, in showing a larger proportionate return from passenger than from freight.

In studying the results, as shown by defendants' computations, we find that, on an average for the four years, the plaintiff earned a net return of only 5.20% from its

total business in Michigan; of only 3.39% from its freight business; but of 10.81% from its passenger business. These results demonstrate, if nothing else, that the returns from the passenger and from the freight business, as found by the defendants, are in very great disproportion, as compared with the railroad statistics generally. Is it not a fair deduction from this circumstance that the criticisms which we have made of defendants' methods of division may be proper criticisms?

We cannot make any proper comparison of the figures of the plaintiff with those of the defendants, as applied to the return from the intrastate passenger business alone, for the reason that before the defendants divide their passenger expenses between intrastate and interstate they weave in their theories of separate apportionments to mail and express and sleepers and diners, and divide between intrastate and interstate only the small balance which they denominate "passenger and baggage." However, by applying to defendants' figures for total passenger income in each of the years the same ratio of proportion which they use for dividing their "passenger and baggage" portion between intrastate and interstate, we find the following results, indicating that the rate of return from the intrastate passenger business, as determined by the application of defendants' methods and figures, is not materially different from the rate of return which they find is received from the passenger business as a whole. In this table we use the passenger net income as determined by defendants after we have deducted the estimated loss, the figures in the first column of this table being the same as those in the last column of the last preceding table.

1914	Total Passenger	Intrastate	Interstate
Defendants' Valuation	$3,081,623	$1,993,453	$1,088,095
Net Income (loss deducted)	198,396	144,739	53,657
Rate of Return	6.44%	7.28%	4.93%
1915			
Defendants' Valuation	3,327,343	2,338,789	988,554
Net Income (loss deducted)	98,582	72,830	25,752
Rate of Return	2.96%	3.24%	2.60%
1916			
Defendants' Valuation	3,073,670	2,176,466	897,204
Net Income (loss deducted)	134,406	96,772	37,634
Rate of Return	4.37%	4.45%	4.18%
1917			
Defendants' Valuation	2,889,648	2,042,114	847,524
Net Income (loss deducted)	146,763	105,669	41,094
Rate of Return	5.05%	5.17%	4.85%
Average 1914-1917			
Defendants' Valuation	3,093,052	2,137,705	955,347
Net Income (loss deducted)	144,537	105,003	39,534
Rate of Return	4.67%	4.90%	4.14%

In order to show how small a return plaintiff would have received from its intrastate passenger business, even by the application of defendants' own methods of division of property and expenses, we present still another table. The figures as to total passenger value have been taken from the defendants' claim as made in the Record, as shown in the foot-note to the table. The division of the value between intrastate and interstate has been made on the proportion of the intrastate and interstate passenger miles in each year, being the basis used by both parties for such division. The remaining figures are taken from the last table preceding.

NET RETURN FROM INTRASTATE PASSENGER BUSINESS, APPLYING DEFENDANTS' FIGURES OF NET INCOME TO DEFENDANTS' CLAIMED PASSENGER PROPERTY VALUES.

1914	Total Passenger	Intrastate	Interstate
Defendants' Valuation	$2,566,054[1]	$1,667,935 64.69%[4]	$898,119 35.31%[5]
Net Income (loss deducted)	198,396	144,739	53,657
Rate of Return	7.63%	8.68%	5.96%
1915			
Defendants' Valuation	2,598,758[2]	1,827,541 70.29%[4]	771,217 29.71%[5]
Net Income (loss deducted)	98,582	72,830	25,752
Rate of Return	3.79%	3.98%	3.34%
1916			
Defendants' Valuation	2,619,894[3]	1,855,222 70.81%[4]	764,672 29.19%[5]
Net Income (loss deducted)	134,406	96,772	37,634
Rate of Return	5.13%	5.23%	4.95%
1917			
Defendants' Valuation	2,644,203[3]	1,868,394 70.67%[4]	775,809 29.33%[5]
Net Income (loss deducted)	146,763	105,669	41,094
Rate of Return	5.55%	5.65%	5.33%
Average 1914-1917			
Defendants' Valuation	2,607,227	1,804,773	802,454
Net Income (loss deducted)	144,537	105,003	39,534
Rate of Return	5.56%	5.82%	4.94%

1 (R. p. 1147)
2 (R. Vol. VII Ex. 202 p. 6)
3 (R. Vol. VII Ex. 203 p. 7)
4 (R. Vol. VII Ex. 204 p. 8)
5 (R. Vol. VII Ex. 205 p. 8)

From the above table we can see that even assuming to be correct the defendants' claimed values of property (notwithstanding such claim is $4,500,000 less than the values claimed by plaintiff, $2,400,000 less than the values found by the Master, and $1,250,000 less than the values found by defendants' own valuation engineer, Mr. Hansell); assuming the correctness of defendants' method of division of common property between passenger and freight by their "Time Ratio" and "Gross Ton Mile Ratio," although such division assigns to passenger less

than 21% of all the railroad property; assuming the correctness of the ratios by which, out of the total maintenance of way expenses of the plaintiff, less than 20% is assigned to passenger, and out of the total station expenses, less than 13% is assigned to passenger; and assuming the correctness of the theory by which nearly $20,000 is for each year arbitrarily taken out of the passenger operating expenses, as the expense of operating the trains while on the tracks of the Mineral Range Railroad; the plaintiff's net return from either its total passenger business in Michigan or its intrastate passenger business in Michigan, would not, for the average of the four years 1914-1917, have been as much as 6%. The only one of the four years when it would have exceeded 6% was the year 1914, which, as appears by the testimony, was an abnormal year for passenger earnings on account of the miners' strike in the copper country (R. p. 1041). It also appeared in the testimony and was found by the trial judge (R. p. 74) that the estimated loss in that year would have been much greater than was actually computed.

The only contention of defendants (considering only such contentions as were carried by them into figures) which is not conceded in making up the above table is defendants' contention that separate assignments of expenses should be made for mail and express and sleepers and diners. It therefore became a matter of necessity for defendants, if they must defeat plaintiff in this action, to invent and maintain such a theory as the creation of a large loss in the sleeper and diner operations.

Assuming the sleeper and diner contention to be untenable, the plaintiff was entitled to a decree, even on defendants' own figures.

Looking now at the results arrived at by the trial judge, who, as before stated, declined to adopt the methods of either of the parties for dividing common property or common expenses of maintenance of way, but adopted

methods much nearer those of the defendants than those of the plaintiff, we find again how small a return plaintiff has been receiving from its passenger business. These results are shown in the Record in Vol. I, pages 86-7, and we retabulate them here.

1912	Total	Intra.	Inter.
Value of Passenger Property	$2,882,375	$1,834,055	$1,048,320
Net Income under Two-cent Rate	100,875	78,609	22,266
Rate of Return	3.500%	4.286%	2.124%
1913			
Value of Passenger Property	$2,793,523	$1,831,992	$ 961,531
Net Income under Two-cent Rate	72,892	55,339	17,553
Rate of Return	2.61%	3.02%	1.83%
1914			
Value of Passenger Property	$3,081,623	$1,993,453	$1,088,095
Net Income under Two-cent Rate	91,191	61,808	29,383
Rate of Return	2.96%	3.10%	2.70%
1915			
Value of Passenger Property	$3,327,343	$2,338,789	$ 988,554
Net Income under Two-cent Rate	Loss 8,007	Loss 5,527	Loss 2,480
Rate of Return	0.0%	0.0%	0.0%
1916			
Value of Passenger Property	$3,073,670	$2,176,466	$ 897,204
Net Income under Two-cent Rate	42,219	25,832	16,387
Rate of Return	1.37%	1.19%	1.83%
1917			
Value of Passenger Property	$2,889,648	$2,042,114	$ 847,534
Net Income under Two-cent Rate	37,957	20,023	17,934
Rate of Return	1.31%	.98%	2.12%
AVERAGES FOR SIX YEARS, 1912 TO 1917.			
Value of Passenger Property	$3,009,685	$2,037,812	$ 971,873
Net Income under Two-cent Rate	56,188	39,347	16,841
Rate of Return	1.87%	1.93%	1.73%
AVERAGES FOR FOUR YEARS, 1914 TO 1917.			
Value of Passenger Property	$3,093,052	$2,137,705	$ 955,347
Net Income under Two-cent Rate	40,840	25,534	15,306
Rate of Return	1.32%	1.20%	1.60%

Even after having accepted without question the defendants' claimed value of the property and after having used for the division of common property and common expenses a ratio which was much more favorable to the defendants than to the plaintiff, the Trial Judge finds that for the six years, 1912-1917 inclusive, the average annual net income which plaintiff would, under the prescribed rate, have received from its total passenger business in Michigan was only 1.87%, and from its intrastate passenger business in Michigan only 1.93%; the average annual return for the period 1914-1917 being 1.32% for the total passenger and 1.20% for the intrastate passenger.

Looking at these three tables of final results of operation, as computed by the plaintiff, by the defendants and by the Court, is it conceivable that the trial judge could have arrived at any different conclusion than that expressed in the final words of his opinion:

> "These figures demonstrate conclusively that, upon any reasonable hypothesis, during the last six years, and particularly during the most important period of the last four years, plaintiff would not have received, under a two cent rate, an adequate return from its intrastate passenger business. This conclusion accords with and is confirmed by many known facts. The passenger travel upon this railroad is comparatively light and very much less than that upon roads of the same class traversing sparsely settled portions of the lower Peninsula of Michigan Climatic conditions are extremely unfavorable. No large cities are served, either along the line of road or at terminals. Distances between even small centers of population are great. Agricultural development is small. The situation and conditions shown by this record are quite similar to those of the Minneapolis & St. Louis Railroad Company, described

in the Minnesota Rate Cases, where the Supreme Court, notwithstanding erroneous methods of computation and apportionment, declared the statutory rate to be confiscatory. In the Arkansas Rate Cases, where the rate of return was little, if any, larger than here, the same Court sustained the contentions of the railroad company. It is settled by experience and by authority that the cost per mile of transportation of the intrastate passenger is more than that of the interstate, and yet, in the Western Passenger Fares Case, the Interstate Commerce Commission granted to the plaintiff, and to the other railroads much more favorably situated, the right to charge two and four-tenths cents per mile for interstate transportation. Plaintiff has never paid a dividend upon its stock and, from its income, has never been able to pay more than a small portion of its interest upon its bonded indebtedness. There is no charge of mismanagement in recent years. Operating expenses have steadily increased and are likely to continue to increase for some time to come.

Plaintiff is entitled to a decree in its favor."

Respectfully submitted,

WILLIAM D. MCHUGH,
JOHN E. TRACY,
Of Counsel for Duluth, South Shore & Atlantic Railway Company, Appellee.

APPENDIX

AN ACT to amend section nine of act number one hundred ninety-eight of the laws of eighteen hundred seventy-three entitled "An Act to revise the laws providing for the incorporation of the railroad, bridge and tunnel companies and to regulate the running and management and to fix the duties and liabilities of all railroad, bridge, tunnel and other corporations owning or operating any railroad, bridge, or tunnel within this State," as amended, said section being compiler's section six thousand two hundred thirty-four of the Compiled Laws of eighteen hundred ninety-seven.

The People of the State of Michigan enact:

Section 1. Section nine of act number one hundred ninety-eight of the laws of eighteen hundred seventy-three, entitled "An act to revise the laws providing for the incorporation of the railroad, bridge and tunnel companies and to regulate the running and management and to fix the duties and liabilities of all railroad, bridge, tunnel and other corporations owning or operating any railroad, bridge or tunnel within this State," as amended, said section being compiler's section six thousand two hundred thirty-four of the Compiled Laws of eighteen hundred ninety-seven, is hereby amended to read as follows:

Sec. 9. Every such corporation shall possess the general powers and be subject to the liabilities and restrictions following, that is to say:

* * * * * * *

Ninth. To regulate the time and manner in which passengers and property shall be transported, and the

tolls and compensation to be paid therefor; but such compensation for transporting any passenger and his or her ordinary baggage, not exceeding in weight one hundred fifty pounds, shall not exceed the following prices, viz: for a distance not exceeding five miles, three cents per mile; for all other distances for all companies the gross earnings of whose passenger trains, as reported to the Commissioner of Railroads for the year nineteen hundred six, equaled or exceeded the sum of one thousand two hundred dollars per mile for each mile of road operated by said company, on which regular passenger service is maintained, as hereinafter provided, two cents per mile, and for all companies whose earnings reported as aforesaid were less than one thousand two hundred dollars per mile of road operated by said company, three cents per mile; *Provided*, That in the future, whenever the earnings of any company doing business in this State, as reported to the railroad commission at the close of any year, shall increase so as to equal or exceed the sum of one thousand two hundred dollars per mile of road operated by said company, then in such case said company shall thereafter, upon the notification of the railroad commission, be required to only receive as compensation for the transportation of any passenger, his or her ordinary baggage, not exceeding in weight one hundred fifty pounds, a rate of only two cents per mile as hereinbefore provided: *Provided further*, That in computing the passenger earnings per mile of any company the earnings and mileage of all branch roads owned, leased, controlled or occupied or that may hereafter be owned, leased, controlled or occupied by such company, exclusive of all spurs and branches over which such company does not operate each way daily, except Sunday, at least one passenger train, or mixed train having at least two passenger coaches or one passenger coach and baggage car, shall

be included in the computation, and the rate of fare shall be the same on all lines, owned, leased, controlled or occupied by such company: *Provided further*, That no company shall charge, demand or receive any greater compensation per mile for transportation of children of the age of twelve years or under than one-half the rate herein prescribed: *Provided further*, That any railroad company may charge a minimum fare of five cents for each passenger transported over its road, whenever cars are propelled or moved by motive power other than steam: *Provided further*, That any railroad company which shall, within thirty days after notification by the railroad commission fail to comply with the provisions of subdivision nine of this section, shall immediately after such failure become liable to the people of the State of Michigan in a penalty of five hundred dollars per day for each and every secular day during the pendency of such failure, which said penalty shall be collected in an action to be brought by the railroad commission in any court of competent jurisdiction within this State, and which said penalty when collected shall be paid into the State treasury and credited to the primary school fund. The penalty in this section mentioned shall be supplemental to and shall not be deemed to supersede any extraordinary remedy by mandamus or otherwise authorized by law, to be instituted by the State, the railroad commission or any State officer or board to compel compliance with section one of this act. The provisions of this section shall apply to all railroad companies operating lines of railroad in this State, whether such companies are organized under the general railroad law or under any special charter from the State legislature.

Approved May 2, 1911.

SUBJECT INDEX.

CITATIONS.

IN THE

Supreme Court of the United States,

OCTOBER TERM, 1918.

ALEX. J. GROESBECK, CASSIUS S. GLASGOW, CHARLES S. CUNNINGHAM and ADDISON L. KEISER,
Defendants and Appellants,

vs.

DULUTH, SOUTH SHORE & ATLANTIC RAILWAY COMPANY,
Plaintiff and Appellee.

BRIEF FOR PLAINTIFF AND APPELLEE ON THE QUESTIONS OF VALUATION.

The trial court, in deciding this case, did not find it necessary to investigate and determine the real value of plaintiff's property which was devoted to the public use. It was apparent to him that the return which the statute would yield to the plaintiff company would be so small that, even accepting the valuation of the property as claimed by the defendants, the return would be inadequate and confiscatory, and upon this ground, he decided the case.

We believe that this court will reach the conclusion announced by the trial court and will, therefore, find it unnecessary to go into the question as to the real, actual value of plaintiff's property, and in our principal brief we have presented the case upon that theory.

However, should this court reach a different conclusion, then it will be necessary to determine the real, actual value of the plaintiff's railroad property, and this brief upon valuation is presented as an aid to the court in such an investigation.

As was stated in our original brief, this case was tried and submitted to a master and a decision was reached by him. Owing to the fact that by the time the master's report was filed, years had elapsed and the testimony before the master therefore related to conditions which were more than three years old at the time of the hearing before the court, the master's report was deemed insufficient for a decision, and testimony was taken covering results of operation of the plaintiff company for the four years intervening between the closing of the testimony before the master and the hearing before the court. The testimony before the court covered, among other things, the valuation for those intervening years. As to land values, it was stipulated on the hearing before the court that the witnesses for the plaintiff who had testified on that subject before the master, should be considered as having testified before the court that the land values during the intervening years, were no less than the values to which they had testified before the master, and that the witnesses for the defendant who testified before the master as to land values, should be considered as having testified before the court that the land values during the intervening years were no greater than they had testified to before the master.

As was said, the trial court did not deem it necessary to refer to the question of the value of plaintiff's railroad property "except in a most general way." (Opinion of the Court, R. Vol. I, p. 81.)

The court further said (Id. p. 82), "the estimates and appraisals prepared and presented by defendant are in many respects much too low."

He further said (Id., p. 83), "if it were necessary in

the decision of this case to determine accurately the value of plaintiff's property used in its railroad business, defendants' claimed values would have to be increased more than $1,000,000."

In view of the fact that the trial court found it unnecessary to determine "accurately" the value of plaintiff's property used in its railroad business, and in view of the further fact that the master is the only person who has actually considered and decided this question in this case, and in view of the further fact that the master's report is in the record herein, comprising Volume III, we shall refer to his report in this argument, although as was said, the report did not constitute the basis of the decree of the trial court.

METHOD OF VALUATION.

In order to find the valuation of the plaintiff's property in Michigan, the plaintiff caused an appraisal thereof to be made by Mr. Henry E. Riggs, an eminent engineer who is now Professor of Civil Engineering in the University of Michigan. His valuation was made as of June 30, 1911, and he used for his plan for listing the property, the classification at that time prescribed by the Interstate Commerce Commission for the keeping of construction accounts. This involved the preparation of forty-three separate schedules, separating in convenient form the various classes of property in use by plaintiff. Later the defendants caused an appraisal of the plaintiff's property in Michigan to be made by Mr. Charles Hansel, who followed the same plan adopted by Mr. Riggs, making his valuation as of October 1, 1912. Later Mr. Riggs made another appraisal of the property, bringing it down to date of June 30, 1913, which was the date fixed by the master as the date on which he based his values. Each engineer, in making his valuation, based it on the theory of cost of reproduction less depreciation, giving for each item in the

several schedules the engineer's estimate of the cost of reproduction, and the percentage of condition in which the property was on the date examined as compared with the condition if it were new. This percentage of condition, applied to the cost of reproduction, gave the "present value." A comparison of these appraisals comprises Volume IV of the Record.

We find, upon an examination of such volume of the record, that through some error in binding, the sheet has been omitted which gives the valuations of each of the engineers in comparative summary form. We are, therefore, attaching such summary sheet as an appendix to this brief.

It will be noted from this summary sheet that the valuations made by these two engineers were not very far apart, if we except land values, as to which both valued on wrong theories, all their valuations on land values being subsequently abandoned as a basis for the claims of either of the parties. Disregarding land values, the valuation of each of the engineers on the total of the remaining schedules was as follows: Hansel (1912) $11,260,859; Riggs (1913), $14,602,343. In addition to the differences due to the later date of the Riggs 1913 appraisal, the differences between the engineers were in some cases as to quantities, in other cases as to unit prices, and in other cases as to theories. A large amount of testimony was introduced in support of, and in opposition to, the valuations as found by these two engineers, and a great many issues of fact were presented which were fought out at length and finally passed upon and decided by the Master, resulting in his finding the total value of plaintiff's railroad property in Michigan to be $13,901,938., as against a claimed value on the part of the plaintiff of $17,044,081, and on the part of defendants' engineer, Mr. Hansel, of $12,727,646., although defendants' counsel now claim the value to be only $11,457,169.

When the hearing before the court was arranged for, the trial judge requested that the valuation be brought down to date of June 30, 1917, and both parties undertook to comply with this request. The plaintiff proceeded in the following manner: It sent its engineers over the road with the detailed schedules of property, as found by the Master to be in railroad use on June 30, 1913, and with instructions to bring the quantities of the items in the different schedules as found by the Master, down to date of June 30, 1917, by deductions for property retired and by the addition of new property acquired in the four years interim; and by making, where necessary, adjustments for additional depreciation. The plaintiff then presented two alternative sets of claims as the values for 1917.

The theory upon which one claim was based was to take the quantities of property in the different schedules as found by the Master, corrected by deductions for property retired and additions for new property acquired, and to obtain the value thereof, not by applying the unit prices used by the Master in 1913, but rather unit prices based upon the average prices of such items of property (rails, ties, equipment, etc.) during the fiscal year ending June 30, 1917, the prices being then on a considerably higher scale than in 1913. In support of this theory the plaintiff introduced a considerable amount of testimony as to the higher prices and their probable permanence. The total value as determined under this theory was $18,070,158., and the detail thereof is shown in plaintiff's exhibit 201 (Vol. VII. of the Record).

The alternative method of valuation adopted by the plaintiff was to simply bring the Master's valuation down to date by making the necessary adjustments for retirements and additions, putting in all additions either at actual cost or at the Master's unit prices. This valuation was made for each of the several dates of June 30,

1914, June 30, 1915, and June 30, 1916, as appears in plaintiff's exhibits 201-A, 201-B, and 201-C, (R. Vol. II., pp. 1190, et seq.). The similar computations for 1917 can be easily made from the tables in exhibit 201 (R. Vol. VII.).

The values for these years, as thus found, were 1914, $14,240,888.; 1915, $14,031,362.; 1916, $14,236,222.

The method adopted by the defendants to ascertain the valuation for the years succeeding 1913, was to take as their basis their original claims before the Master (ignoring his findings, except that in the greater number of instances the Master had adopted the defendants' claim as his finding) and to attempt to bring the same down to date by adding or deducting the net amount shown in the plaintiff's account for "Additions and Betterments" in each year in its report to the State Railroad Commission. It was shown, however, on the hearing before the court, that this method was based upon a misunderstanding by defendants' counsel of the real nature of the "Additions and Betterments" account, which is an account set up and kept in accordance with the regulations of the Interstate Commerce Commission and as to the proper construction of which there can be no conflict. As shown by the classifications of accounts of the Interstate Commerce Commission, which are in evidence (plaintiff's exhibit 216) and explained by the testimony of plaintiff's comptroller, Mr. Delf, (R. p. 1052) the account of "Additions and Betterments" or "Road" is not an account of property but of investment and does not take into consideration at all the question of depreciation. Property deducted from that account by reason of retirement is deducted at original cost new, (or at estimated cost new if the figures of original cost are not available) and property added is put into the account at cost new. For instance, a railroad company may have on its line a bridge which cost new $10,000., but which by deprecia-

tion, is in only 50% condition. The company replaces that bridge by a similar structure costing $10,000. The account of Additions and Betterments would be debited with the cost of the new bridge, $10,000., and would be credited with the investment in the old bridge, $10,000., making no net increase in the account. No account whatever is taken of the fact that the retired bridge had a much less value than its investment cost, and that the railroad now has a $10,000. bridge in 100% condition, instead of a $10,000. bridge in only 50% condition. It is therefore seen that defendants' method of bringing the valuation of 1913 down to date by use of the "Additions and Betterments" account in no way reflects the real change in the values of property between the two dates. Such a $10,000. bridge in 50% condition would have appeared in the Master's valuation as of the value of $5,000. Under the plaintiff's method $5,000. would have been deducted from the Master's valuation for property retired and $10,000. added for new property acquired, making a net addition of $5,000.

Defendants' claimed values for 1914, 1915, 1916 and 1917 are shown in their exhibits 332, 339, 343, 344, 345 and 346 (Not printed). The totals are as follows: 1914, $11,674,752; 1915, $11,697,474; 1916, $11,526,134; 1917, $11,875,868.

In addition to bringing their former valuation down to date, defendants, on the hearing before the court, introduced additional testimony as to the condition of plaintiff's road in 1917, and as to quantities and unit prices of various items of property.

We shall now present briefly our argument on those valuation schedules as to which the parties materially differ:

SCHEDULE I.

Right of Way and Station Grounds.

There was more testimony taken on the value of the lands of the plaintiff than on any other valuation schedule, notwithstanding that there was no testimony on this subject at the hearing before the court, this issue being presented to the court on the stipulation of the parties above referred to as to the use of the testimony taken before the Master. The witnesses, in general, testified to the lands as the same are described in plaintiff's Exhibit 1-C, which was a new inventory of lands prepared to correct errors in previous inventories, and at the same time, to give the allocations of the lands to the different services (1) passenger, (2) freight and (3) common passenger and freight, as the same had been agreed upon between the parties. The method of valuation of lands adopted by both parties was that laid down by this court in the Minnesota Rate Cases (230 U. S. 352) in that the witnesses were asked to base their values upon the value of similar lands adjoining, and if there were not similar lands adjoining, nearby similar lands. Each side furnished to the Master a schedule showing the value claimed by it for each parcel of land to be valued, with references to the testimony upon which they rely, and the Master made a deep study of the testimony and a detailed valuation of every parcel, as shown in his report (R. Vol. III., pp. 84-112).

The totals of land values, as found by the Master and as assigned by him to the different services, is as follows:

Passenger	*Freight*	*Common*	*Total*
$142,679	$1,025,228	$612,332	$1,780,239

It will be noted that of his total valuation of $1,780,239, considerably over half thereof is assigned by the Master to exclusive freight (comprising, to a large extent, the

freight spurs in the mining district). The value assigned to common (being the main line right of way) is only at the rate of about $1,410 a mile, or $117 an acre, certainly not an exorbitant price when we realize that this includes the right of way in all the cities and villages through which the road runs.

There were certain parcels used by plaintiff with reference to which there was a controversy between the parties as to the proper method of valuation and certain other parcels where they differed as to whether the land was properly to be included in plaintiff's inventory. Some discussion of these controversies seems to be desirable.

(1) *Lands with special value on account of their adaptation for railroad purposes.*

There were two such items of property. One was the so-called South Yard of the plaintiff in the City of Marquette, where it was found that the land was peculiarly adapted for the purposes of a railroad yard and that to construct a yard in any other place in that city would not only involve a greater cost of construction, but also of operation, and that the cost of such a substitute yard could be proved and was proved in dollars and cents.

The other item was the right of way in Houghton County from the Pilgrim River to and including the Houghton Terminal, where the railroad occupies a narrow shelf of land along Portage Lake. As to this tract, plaintiff proved that any substitute line, if this were not available, would be much more expensive and the cost of the next most available route was set forth in dollars and cents.

As to the principle that the plaintiff may have the value of its lands that by reason of their special adaptation for railway purposes have a market value beyond the value of ordinary lands in the same vicinity, there can be no question under the decisions of this Court.

It was so expressly held in the Minnesota rate cases, 230 U. S. page 451, citing U. S. *vs.* Chandler-Dunbar W. P. Co., 229 U. S. 53, and other cases therein cited.

The proofs as to the special values in these two instances were undisputed and the special values claimed were moderate in amount. We therefore think the Master was abundantly justified in his valuation of these lands. (Master's Report. R. Vol. III, pp. 84-86.)

(2) *Lands with water rights appurtenant.*

This question involves lands on the water front at St. Ignace, Marquette, and Houghton, respectively, and presented certain issues of fact which were passed upon by the Master on pages 86 to 91 of his report. (R. Vol. III, pp. 86-91).

It is the claim of the plaintiff that the lands on the water front at St. Ignace were all in railroad use, including their water rights, because it was necessary to own the water front on each side of all docks in order to preserve the use of the water on each side of the docks from encroachment by other docks built out from adjoining lands.

There was practically the same situation at Marquette, but the controversy there is now of small importance because the property in controversy is almost all in exclusive freight use.

At Houghton, the property affected was all common passenger and freight. There were no docks then in actual use, but it was the claim of the plaintiff that the water rights were essential to be held for the same use which had been made of them in the past and might be necessary at any time, and we believe the testimony fully justified the Master's decision in plaintiff's favor in this regard.

With reference to all lands on the water front, it was the claim of the plaintiff that if the lands were necessary for railroad use and were wisely selected as affording the most economical place to build a railroad, it was entitled

to the entire value of the land, as water rights are merely appurtenant to the land. This claim was applicable particularly at Houghton, and the testimony was uncontroverted not only that the plaintiff's railroad was economically located, but that it was the only place where it could be located. In addition, the testimony disclosed the fact that it was impossible to use the water rights for other than railroad purposes without interfering with the railroad use of the lands.

(5) *Trackage rights in streets.*

The plaintiff caused to be valued by witnesses two rights of way in streets, one in Lake Street, in the City of Marquette, and one in Canda Street, in the City of Ishpeming. In each instance, the use of the part of the street valued was exclusively in the railroad company, and the easement was, in each instance, perpetual. With reference to the right in Lake Street, the question of perpetuity was in dispute before the Master because the resolution of the Council of the City of Marquette granting the easement was permissive and fixed no time limit. We believe that the Master was of the opinion that it was a revocable right. In this he was clearly in error, although not at all in fault for the error, as the question was not properly argued by the plaintiff nor the conclusive decision of this Court called to his attention.

Paragraph Fifth of Section 9 of the General Railroad Laws of the State of Michigan (S. 6234, Compiled Laws of 1897), covers the terms upon which railroads may obtain the right to cross or occupy public streets. So far as we deem it material, it reads as follows:

> "And in case of the construction of such road upon any public street, lane, alley or highway, the same shall be on such terms and conditions as shall be agreed upon between the railroad company and the common council of any city, of the village board

of any village, or the commissioner of highways of any township, in which the same may be; but such railway shall not be constructed upon any public street, lane, alley, highway or private way, until damages and compensation be made by the railroad company therefor to the owner or owners of property adjoining such street, lane, alley, highway or private way, and opposite where such railroad is to be constructed, either by agreement between the railroad company and each owner or owners, or ascertained as herein prescribed for obtaining property or franchises for the purpose of its incorporation," etc.

It will be seen that while the power to acquire the use of streets comes to the plaintiff from the state in the same way and in the same sense that the power to condemn property and the power to be a corporation comes from the state, the actual right to use a street is obtained only by actual bargain, not only with the municipality, but with the owners of the property abutting on the street.

Reidinger *v.* M. & W. Ry. & D. M. & M. Ry., 62 Mich., 29.
G. R. & I. Ry. Co. *vs.* Heisel, 38 Mich., 62.
M. & S. E. Ry. Co. *vs.* Longyear, 133 Mich., 94.

The Reidinger case had to do with rights acquired by two of the railroads whose property now constitutes a part of the property of the plaintiff, and shows that, as a matter of fact, rights in the streets of Marquette were not obtained without compensation.

City of Owensboro vs. *Cumberland Telephone & Telegraph Company*, 230 *U. S.* 58 determines, beyond controversy, that the right given by the City was not temporary and not subject to revocation, except the power to revoke was expressly reserved, and in the instant case, it was not so reserved. With reference to a franchise not at all dif-

ferent in its nature from the one here under discussion, this Court said, (page 72):

> "When that grant was accepted and acted upon by the grantee, it became a contract between the city and the telephone company which could not be revoked or repealed unless the power to repeal was clearly and unmistakably reserved."

(Page 66)

> "If there be authority to make the grant and it contains no limitation or qualification as to duration, the plainest principles of justice and right demand that it shall not be cut down in the absence of some controlling principle of public policy."

It was also held in that case of the franchise right to use streets (Page 65) that "as a property right, it was assignable, taxable and alienable. Generally, it is an asset of great value to such utility companies, and a basis for credit."

Can it be possible that a property right of this kind is to be excluded from the value of a public utility corporation?

There is absolutely no evidence in the case that the City of Marquette has ever desired even to take this property from the complainant, and the evidence is conclusive that if it could be taken from it, plaintiff would be compelled to obtain adjoining property, not so well suited for its purposes and upon which a railroad could only be built at greater cost to replace the property it is using.

With reference to the use of Canda Street, not only was the right given in perpetuity, but the contract with the City of Ishpeming provided that before the railroad company

> "Shall grade for or lay any track upon the course as designated upon the map, it shall purchase and deed

to the city sufficient land along the north side of Canda Street at places where said course on said map at and near First Street, and also between Lake and Spruce street, approaches nearer to the north line of Canda Street than at the Main Street crossing, so that such land so purchased shall make said Canda Street north of said crossing throughout its entire length of uniform width, and same (as) at the Main Street crossing."

So it appears that there was a consideration passing from the railroad company to the City of Ishpeming for this right, and that, in addition to bargaining with the abutting owners, the plaintiff actually bought and paid for land which it conveyed to the City of Ishpeming in exchange for the land which it now uses, in exclusion of the public. For the Master's findings on these questions see R. Vol. III. pp. 91-94.

(4) *Land values in the Mineral District.*

The facts as to this dispute are very well set forth in the Master's report as follows: (R. Vol. III. pp. 94-100).

"Throughout the city limits of the City of Negaunee, and from thence through the City of Ishpeming, and for some distance beyond, the main lines of the complainant traverse a well-known and very valuable iron ore formation. Besides these main lines, the complainant owns branch lines which are used to reach mines in operation, and are useful and valuable for reaching any mines that may be discovered in the district. The rights of way for all the lines referred to are perpetual and exclusive, and carry with them the right to the permanent maintenance of the surface. Throughout the City of Negaunee the ore is a soft ore which is only economically mined by allowing the surface to cave, following the removal

of the ore, thus causing very considerable depressions in the surface. If a railroad lies over such an ore deposit and must be maintained, not only is it impossible to remove the ore which underlies the track, but it is impossible to remove the ore lying on either side of the track for very considerable distances, except at an expense which is practically prohibitive. There are now three main lines of railroad traversing the district. Of recent years it has been almost, if not quite, impossible to obtain the right of way across this district, except the carrier would agree to remove its track to another place if ore was discovered thereunder, which place it must itself acquire, and bear the expense of the removal of the railroad thereto.

"Shortly before this suit was commenced, ore was discovered under a track of the comp'ainant, and by agreement the Mining Company procured a new right of way and at its own expense, transferred the railroad thereto, the distance being some 2.75 miles. The entire expense of this transfer and the cost of acquirement of right of way was fully proved in the evidence. In addition to the evidence of the actual cost of this piece of right of way, there was opinion evidence as to the price at which the other right of way of complainant could be acquired through this mineral belt, considering the value of the lands over which they ran and the probability of iron existing therein. The chief witness relied upon was Mr. Belden, who had not only purchased the right of way at private sale, but had acquired by condemnation, right of way over similar lands in the district.

It is obvious that the right of way over this territory could not be valued by the value of nearby adjoining mineral lands, because the complainant does not own the mineral, but simply an easement with the right of support. It is equally obvious that this right of way is far more valuable than the adjoining lands valued simply as farming or garden property.

The claim of the complainant as to the nature of these lands and the character of the formation was

substantially confirmed by Mr. Allen, the State Geologist of Michigan. From his testimony it appears that while in some parts of this ore formation the geologist would be more apt to expect ore than in others, that a valuable deposit might be found anywhere.

The character of the ore in the City of Ishpeming is different from that in the City of Negaunee, in that it is a much harder ore, and by leaving pillars of ore the ground may be supported so as to maintain a track, but this can only be done at a loss of 30% of the entire ore body.

"The foregoing are undisputed facts and on them the question to be determined is, what value shall be given to those portions of right of way? Shall it be merely the surface value of the lands involved, or shall there be included also an allowance for the prospective mineral value?

The Master's finding on this point was as follows:

"Whatever elements of value are included in the market value of this right of way, as such value is shown by the evidence, must necessarily be included here. It is the judgment of the buying and selling public that determines the market value, and if that judgment is that the value of the property is enhanced, by its mineral prospects, it is, in fact, so enhanced, whether such judgment is wise or foolish—whether the prospects do or do not justify the estimate of any enhancement of value.

Under the rulings of the Minnesota rate decision, it seems clearly to be my duty to find the market value of this portion of right of way and include it in the valuation without undertaking to analyze and differentiate between the different elements of value that enter into that market value. This I have done, as specifically explained in the detail of land values in Marquette County, and the value of lands there fixed through the mineral belt, I believe to be fair and conservative."

We submit that the Master could not, under the evidence, fail to include in the value of these lands a value due to their permanency and right of support in a mineral district, and that the values as fixed by the Master were fair and conservative.

In this connection we call the attention of the Court to the case of *Montana Ry. Co.* vs. *Warren*, 137 *U. S.* 348.

SCHEDULE 3.

Grading.

The engineers divided the property in this schedule into five classes of items, viz:

(1) Grading proper, being the cost of moving materials used in the construction of the road, including earth work, solid rock and loose rock; (2) Clearing and grubbing; (3) Corduroy; (4) Rip-Rap; (5) Retaining Walls.

(1) *Grading.*

There was no disagreement between the parties as to the quantities of grading, nor as to the unit prices for both loose and solid rock. The principal disagreement between them was as to unit prices for earth work, Mr. Riggs having used a unit price of 30¢ a yard on all earth work and Mr. Hansel a different price for various materials,—his average price being 25.6¢.

The only basis suggested for Mr. Hansel's unit prices is his statement that they were according to his experience (R. p. 534) and he admitted that none of that experience had ever been in the Upper Peninsula of Michigan. He was not supported in his estimate of prices by the testimony of any other witness, except the defendants' witness French, who did not testify before the Master, but who testified before the court (R. p. 1131).

Mr. Riggs' prices were based on his own experience

in railroad construction; on the Michigan State appraisal of railroads of 1900 (known as the Cooley appraisal), which in that period of much cheaper costs used a unit price on earthwork of 25¢ a yard on all the railroads in the State, it being conceded that labor costs are higher for work in the upper peninsula than in the lower; and on prices for which contracts were let for construction of spurs to plaintiff's railroad in 1910, most of which contracts were at or above 30¢. (R. p. 174).

Mr. Riggs' price was corroborated by Mr. R. C. Young, Chief Engineer of the Lake Superior and Ishpeming Railway, who has had twenty or more years' of experience in railroad construction in that particular territory (R. pp. 262, 264); also by Mr. Loweth, Chief Engineer of the Chicago, Milwaukee & St. Paul Railway Company, which company owns and operates lines of railway in the upper peninsula of Michigan. The testimony of Mr. Loweth is interesting in that it shows that his estimate of grading costs was not one given for the purpose of this litigation, but that he was willing to act upon it as a fair basis for contract. In 1912 he testified before the Master, giving his opinion, from his experience, that 30¢ a yard was a conservative price for earthwork grading in that particular territory. (R. pp. 457-9). In 1917, he again appeared on the stand before the court and testified that early in 1915, his company purchased from the Chicago & Northwestern Railway Company a one-half interest in certain mining tracks in the upper peninsula of Michigan, on the basis of paying one-half of the estimated cost of the construction of those tracks, and that he and the chief engineer of the C. & N. W. R. R. Co. agreed that the prices at which grading should be figured should be 30¢ a yard on certain tracks and 33¢ a yard on others; and on his approval, his company paid for the tracks at those prices. (R. p. 1062). The Riggs price was also corroborated by Mr. Hogeland, Chief

Engineer of the Great Northern Railroad, who testified from his experience in letting grading contracts in Northern Minnesota, a country very similar in physical and climatic conditions to the upper peninsula of Michigan. Mr. Hogeland testified that although the average price of grading for the Great Northern System was only 19.3¢ a yard, the average price in Northern Minnesota was 36¢. (R. p. 475). The Riggs price was also corroborated by Mr. Payne, a witness called by the defendants on the hearing before the court, who had at one time been chief engineer of plaintiff's railroad, but had left plaintiff's employ in 1904, and who testified on cross examination that 30¢ a year would have been a fair price to pay for earth grading on plaintiff's railroad in the years 1913 to 1916. (R. p. 1103).

In view of the overwhelming weight of the evidence in favor of the Riggs unit price, the Master adopted it in his valuation of earthwork. (Master's Report, R. Vol. III., pp. 113-4).

(2) *Clearing and Grubbing.*

Both engineers agreed in their theory as to an allowance for clearing and grubbing, viz, that in computing the value of the grading schedule there should be allowed the cost of clearing the right of way occupied by the grade, basing their allowance for the amount of clearing and grubbing to be done upon the present condition of the adjoining lands. They differed somewhat as to the extent of clearing required, and as the amount allowed by each of them was at best only a rough estimate, based only upon their general inspection of the road as a whole, the complainant sent a man over the road for the express purpose of making an accurate estimate as to this, basing his estimate on an actual inspection of the land adjoining the right of way on each side. The carefulness of this esti-

mate was not questioned, and it was accepted by the Master. (Master's Report, R. Vol. III, pp. 117-24.)

There was a dispute between the engineers as to the amount of grubbing required—Riggs claiming that 40% of the cleared area would require grubbing and Hansel's percentage being 29.08. The Master adopted the Hansel figure.

It was the contention of the defendants that no allowance be made for the item of clearing and grubbing, for the reason that it is a part of and included in the land value of the right of way itself. The Master held, however, that here clearing and grubbing is not an item of land value, but of construction cost; that the chopping down of a tree, the removal of the same from the right of way, and the grubbing of the stump is as much of a construction cost as the removal of a stone or boulder, and such cost has no application or relation to land value except in the instances where the land in the right of way has to be valued according to the value of the cleared and grubbed land adjoining. In such cases no allowance for clearing and grubbing was claimed by the plaintiff or allowed by the Master. In the instances where there was no nearby cleared land and the valuation of the land in the right of way had to be based on nearby uncleared or nearby cut-over lands, he excluded all timber value from the lands, but allowed clearing and grubbing under this construction schedule.

The defendants' valuation was taken by the Master as to all remaining items in this schedule—Corduroy, Riprap and Retaining Walls. The Master's findings as to the values in this schedule were all sustained by the court (R. p. 83), as shown by the opinion of the trial judge.

The following table shows the total value of this schedule as claimed by the engineer of each of the parties and as found by the Master:

Riggs (*Plaintiff*)	*Hansel* (*Defendants*)	(*Master*)
$2,855,707	$2,419,763	$2,766,714

SCHEDULE 6.

Ties.

The engineers were not very far apart as to quantities and the Master accepted the lower quantities, being the Riggs figures. The engineers also agreed as to unit prices, but the Master found an error in that both of them had twice included an inspection charge, and he cut the unit price down from 40¢ to 39¢. He also adopted the Hansel percentage of condition of 55%, which was lower than that of Riggs. We do not think the defendants can sustain their claim of error in the court's finding on this schedule. (See Master's Report, R. Vol. III, pp. 126-7) and opinion of trial judge (R. p. 83).

The following table shows the total value of this schedule as claimed by each of the parties and as found by the Master:

Riggs (*Plaintiff*)	*Hansel* (*Defendants*)	(*Master*)
$342,725	$315,428	$286,462

SCHEDULE 10.

Ballast.

The engineers differed as to quantities, unit prices and percentage of condition. For each different kind of ballast the Master accepted the figures of the engineer whose figures were the lower. He did the same as to unit prices. The only error which could be claimed in his valuation of this schedule was in the fact that he failed to depreciate the ballast from its cost of reproduction as found by him. His reasons for not depreciating ballast are set

forth on pages 129 to 135 of his Report (R. Vol. III, pp. 129-136), and his conclusion is as follows:

> "I find that ballast wherever exposed to the action of the elements depreciates slightly from disintegration, but that the depreciation from this cause occurring in the ballast of a railway between the time of ballasting and that of reballasting is so slight as to be practically inappreciable; that the ballast that is placed in the bed of a railway gradually diminishes in quantity by the sinking of portions of it into the ground, and by other portions of it being carried away by the elements, in consequence of which new ballast is required to be added from time to time, but that this diminution in quantity does not diminish the value per cubic yard of the ballast which remains in the road; that the ballast now in the complainant's road has not suffered appreciable depreciation from either of the causes assigned, and that its present value is the amount that it would cost to reproduce it."

In other words, he found as a fact that each engineer, on an examination of the road, found there at that time the amount of ballast which he inventoried. Whatever other ballast there may have been which had blown away since it was put on, was not a question for the court to determine.

The following table shows the value claimed on the total of this schedule by the engineer of each of the parties, and the value found by the Master:

Riggs (*Plaintiff*)	*Hansel* (*Defendants*)	(*Master*)
$657,748	$560,480	$610,247

SCHEDULE 11.

Track Laying and Surfacing.

The defendants on this appeal have abandoned all their former claims as to this schedule except their claim that the items should be carried at less than 100% condition (R. p. 126).

Both Mr. Riggs and Mr. Hansel carried this schedule at 100% condition, on the ground that it was a labor item which did not depreciate, but the defendants contended that it should be depreciated with the average of the five preceding schedules. The Master answered this contention on pages 139 to 147 of his report (R. Vol. III). We concur in his views and are of the opinion that even if the court should conclude that there should be depreciation in this item, the Master has demonstrated that the method contended for by the defendants is not a sound one.

SCHEDULE 34.

Ferries and Steamships.

The property in this schedule consists of two car ferries, the value of which was agreed upon between the parties. The ferries are owned by the Mackinac Transportation Company, an independent corporation controlled by the Michigan Central, Grand Rapids & Indiana, and the plaintiff railroads by stock ownership. The Transportation Company does both a freight and passenger business. In its passenger business it deals with the public generally, and charges a rate, not regulated by statute, amounting to 7¢ per mile. In its freight business it deals with the owning Railroad Companies only, except for a small amount of local freight between St. Ignace and Mackinaw City. Each one of the owning roads shares in the expense of the operation of the boats in proportion to the revenue received by it from freight going over and beyond the Straits of Mackinac in either direction. The

passenger revenues of the Transportation Company are used to reduce those expenses, and the owning roads are regularly billed upon for their respective shares of the net expense. The operations of these boats do not come into plaintiff's books of account, except that those books contain charges for the portion of the expense which complainant is called upon to pay to the Transportation Company for doing plaintiff's freight business.

It was the claim of the plaintiff that one-third of the value of the boats should be included in the valuation as freight property. It was contended by the defendants that one-third of the passenger revenues of the Transportation Company were a part of the passenger revenues of the plaintiff and should be so treated, and that the property should be included as joint passenger and freight. Both parties argued these questions at considerable length. The Master held that the property of this separate corporation, which itself does a passenger business on its own rates, was not a part of the passenger property used by the plaintiff, and no part of its revenues were passenger revenues of the plaintiff. The subject is fully treated by the Master, and in this brief we are quite content to rest the questions involved upon the findings made by him. (See Master's Report, R. Vol. III, pp. 162-168.)

SCHEDULE 35.

Engineering on Equipment.

Both Mr. Riggs and Mr. Hansel, and all other witnesses who testified on the subject, agreed that to arrive at the true value of plaintiff's property an allowance for engineering on equipment must be made, because the price paid for the equipment does not include the cost to the railroad of preparing the specifications for the particular equipment needed, nor the cost to the railroad of the inspection thereof. All the witnesses agreed that an allow-

ance of 2% on the equipment schedules properly measures this cost. Riggs (R. pp. 147-8); Loweth (R. p. 164); Hansel (R. p. 543); Cooley (R. 690).

Notwithstanding this agreement of testimony, the defendants' counsel contended that nothing whatever should be allowed for this schedule. The Master found this element of value to exist to the amount testified to by the engineers, and we do not see how he could have arrived at any other conclusion. (Master's Report, R. Vol. III, pp. 169-70.)

SCHEDULE 37.

Contingencies.

The Master in his valuation allowed an item of $400,000 for contingencies; that amount being slightly less than the amount allowed for contingencies in the valuation of defendants' engineer, Mr. Hansel, and a little more than half the amount claimed by the plaintiff. The defendants claimed that nothing should be allowed for this item. The trial judge, moreover, expressed it as his opinion that "some of plaintiff's claims as to values must be wholly rejected. In any plan for the actual construction of a railroad and in the preliminary estimates of its costs, an allowance for unforeseen contingencies may be proper; but in determining whether a given rate is confiscatory, indulgence in speculation as to what may or may not happen cannot be permitted" (R. p. 82).

The conclusion that an allowance for contingencies in this case would be "indulgence in speculation," altogether ignores the large amount of testimony on that point taken in this case. This testimony was more complete and informative than in any other rate case which has been brought to our attention, and in view of the position taken by the court, we shall quote from this testimony somewhat at length:

Mr. Riggs testified (R. p. 188-190):

"The item of contingencies is one that is added in all cases of valuation, to cover those elements of cost of construction that are not disclosed by the inventory of the property, and those elements that are due to weather, strikes and other causes that go to increase the cost of construction or add to the unit prices that have been used in making up the appraisal estimate.

My percentage averages 7.9%. This item is, and has been for many years, customary in construction work, in the engineering profession. On ordinary construction work, involving all classes of road equipment and bridge work, percentages vary from 5% to 15%, and, more, averaging fully 10% on all items. Engineering practices vary as to exactly how this should be added; some prefer to add a percentage to each item, varying from 5% to 20%, and some prefer to add an average percentage to the entire estimate.

Where percentage is applied to each item, there should be a general smaller percentage applied to undertaking as a whole, to cover elements of cost not covered in specific items. Contingency item is to cover unforeseen things or errors in inventory, and includes casualties, personal injuries, and loss by fire, flood and cyclone. In a property in existence for a number of years, it is difficult to procure accurate inventories, especially of masonry and concrete, yardage of grading, and other elements that go to make the completed property. The percentage is added, on the assumption that the estimate is always under. In practically every estimate of this sort, the serious errors have been errors of omission.

It might be possible to over-estimate, but in all estimates based upon profile quantities, as this is, the almost absolute certainty is that the error is of undervaluation, rather than an over-estimate. The profile fails to show swamp land, where settlement has taken place and additional earth has been hauled in, or

earth for filling sink holes or swamps, or earth hauled in to widen embankments, or where cuts have been taken out by steam shovel work and material used elsewhere. My contingency percentage is lower than in all Cooley appraisals, where 10% was applied to all items, including the overhead charges.

In every appraisal of railroad properties, a percentage has been included for contingencies, the amount of which has not been uniform. I have had frequent opportunity to observe the propriety of the percentage by comparison with actual results of work for which I made estimates. It has been my practice to allow 10% for contingencies in all estimates for new work. I have never been employed on work where the element of contingency in some form did not enter into and affect the cost to such an extent as to wholly or largely justify the percentage used by me, of 10%.

In general, the problem of estimating reproduction cost is more difficult than estimating the cost of new construction of a standard property, as the estimate for the new property is based upon complete surveys and specifications, etc., and the contingencies should be limited to elements of unseen construction, such as clay soil, rock, hard pan, quick sand, swamps, sink holes and weather contingencies, and not upon the omission of things to be done, while in the case of an old property all these things enter in; the property has been built so many years that perfect history of construction cannot be secured, and many things are not found that were encountered in building the property.

In my opinion, a contingency allowance is proper and necessary; the amounts added are reasonable, and I believe that if it were possible to determine the exact history of this property, it would be found that all, or substantially all, of the amounts named for reproduction cost of contingencies has actually been incurred in the way of contingent expense."

"My attempt was to make as complete an inventory as time would permit, and furnish as accurate a valuation as it was possible to furnish at the expenditure of a reasonable amount of money."

"So far as the contingency element applies to the items of difficult construction, bad foundations, expense due to construction in the winter, or weather conditions, or delays to traffic on account of construction or high unit prices by reason of causes that are not now capable of determination, it still leaves a large element of contingencies, and I think that it is unquestionably true that it is fully as difficult, if not more difficult, to arrive at a correct inventory and an accurate estimate of existing property, that has been in existence for many years, than it is to make an estimate of the cost of several hundred miles of standard construction where surveys have been made.

Allowance for contingencies was intended to cover (a) error of inventory, (b) cost due to difficult construction, and (c) cost due to weather conditions, all of which are in South Shore in as large a measure as in property about to be built. I have never known a case where cost of construction did not run in excess of estimated cost as a whole, and I always allow liberally for contingencies. I have endeavored to eliminate all elements of contingencies from the detail of my schedule, except where, in earthwork, I used the Cooley figures as a basis, and there I have added percentages. I think the figures I have given for earthwork actually under quantities that would be disclosed by re-survey. On particular struct res, my experience has been that, when work was finished, some of my structures have underrun and some overrun the estimate 10%.

An engineer may make the most careful estimates on the actual physical construction and be substantially correct, and he may carry out that work, and often engineers do carry out work and get comfortably within their estimate of the cost of doing the physical, but other items entirely outside of their con-

trol come in on every job, to a greater or less extent; that must be classed as a contingency charge.

Other items of contingency would—extra expense due to (d) demurrage, (e) material yard charges, (f) strikes and labor troubles, (g) securing labor, and (h) change of plans."

"I fail to see where it can be said that there is any greater value to the public by reason of the fact that, in the course of railroad construction, strikes occur, or delays to material, or even damages by reason of storms or wash-outs; but, in the building of every property, expenses of those kinds and of similar nature are incurred, and the men who are putting the money into the property, to create the property, are compelled to furnish that money and invest it in the property, and it appears to be a properly chargeable expense incident to construction, and to be properly a part of the capital.

The strike and delay, involving demurrage charge and a dozen other items, are misfortunes that are incident to the building of railroads, and, no matter how carefully the organization may have been planned, they are bound to come in, in some form or other, to a greater or less extent, before you get your railroad built; you cannot avoid spending money—more money than you ought to spend, perhaps—for items of that sort, that are in the nature of a misfortune. A strike is a possibility; certain other elements of contingencies are probabilities."

Mr. Loweth, who has had, in many respects, the most thorough and instructive experience of all present day engineers in the United States, in that as Chief Engineer of the Chicago, Milwaukee & St. Paul Railroad, he performed the last great piece of railroad construction work in this country, the extension of that railroad through to the Pacific coast, in 1905-6, testified as follows: (R. pp. 459-464):

"The item of contingencies in the cost of reproduction of a given property should include those items of cost, whatever their character, that could not be seen in making an inventory of the property or which might be overlooked or by error or oversight omitted from such inventory and by the possible error in the unit cost that might be taken in making the valuation. The contingencies in making an estimate of the cost of a property to be built would cover those things which, due to the haste in which the matter was investigated, had been overlooked or which from the nature of the case could not be foreseen and provided for. I think that there is very little, if any, difference in the allowance for contingencies in the case of making an estimate of reproduction of an existing property and in making an estimate of the cost of property that was proposed to be built, for the reason that as we go over a completed property there are always some elements of cost that are not apparent. It is impossible to carry out any large piece of construction without accidents, accidents of such a nature that they involve a loss of life and property. Those losses enter in as one of the contingent items. In going over a completed property it is impossible to tell whether anything of that kind did happen or not, but from our experience in reconstruction we know that they certainly do happen. When we built our line to the Pacific coast our company spent between $250,000 and $300,000 to make trails and final roads across the Bitter Root mountains. We needed them to get over the country in order to make our surveys and to get our contractors over it and to get the contractors' materials in. There is no evidence of that item of expense today except that the roads are there and belong to the public. It was a contingent item in the cost of that construction. The item of contingencies arising from the necessity of changing the routing of material forwarded to near points from that planned, anything of that sort, almost invariably comes in and

sometimes in very large amounts in any large construction. Another instance in the construction of our line to the coast was that we had anticipated taking all of our track and bridge material out over our own line and carrying the completion of the line out from the Missouri River through to Butte, Montana, and we worked on that plan until we got pretty well into the State of Montana, and due to difficulties which were unsurmountable, we had delays in our grading, so that it was apparent that we would suffer a very serious delay in the completion of our line through to Butte unless we sent our material around by the N. P. road to Lombard and begun the laying of the track easterly from Lombard. That involved the paying of revenue freight on material for long distances, that was not a part of our plan. We are doing at the present time a large amount of new construction work involving 200 miles, more or less, of double tracking and new line construction in Iowa and a similar amount in Minnesota and South Dakota. We have been unable to get waterways completed, that is, bridges in and culverts in, so that in many cases the grading contractors have been obliged to leave openings in the embankments for these incompleted waterways or else to pile the material up at each side of the opening so that it could be put in after the opening was in. That will involve either one of two things, the handling of a large amount of material a second time or the leaving of the openings and temporarily bridging them and the handling and filling them later. In many cases we have put in a construction for waterway which was not the most economical, because of the urgency in getting that particular job done. It sometimes involves a change of plan from the original purpose. There are unexpected difficulties that come up and we find that it is necessary to stop and back up and start again, and that means the abandonment sometimes of work actually done. The contingencies in new construction of

that kind are oftentimes very large and they are more than is usually the case in building construction or in any kind of construction where the work is concentrated, such as it is in a large bridge, where the conditions can be readily seen. The building of a railroad extends over a great many miles of country and sometimes it is difficult of access and the natural conditions are very variable and it is impossible, practically speaking, to anticipate all of the difficulties, and so it is customary to add a considerable percentage for contingencies, and after the road is built and an estimate is made of what it would cost to replace it, there are a great many things that legitimately and properly enter into the cost of the road that cannot be discovered. Open cuts are sometimes found where it was originally intended to build a tunnel or perhaps where a tunnel was originally built. We had a case of that kind near Rosalia, Washington. A tunnel was built through a spur of the hill, I don't remember how long it was, but six or seven hundred feet, as nearly as I can recollect, and before the line was put on a construction basis we found that the material was yielding, before it was put on an operation basis, and notwithstanding that it was a well timbered tunnel, we had to make an open cut of it. The cost of doing that was considerable, because the time that it took to do it extended past the period at which the line had been opened up for traffic, and that enhanced the cost of doing the work. Another contingent item is that work of this character is subject to floods and fire. We are necessarily obliged to build across valleys and along streams. The time required for construction involves many months, sometimes two or more seasons, and floods occur and the work that is partly done is washed away and it has to be replaced. That cannot be guarded against. It is a contingent item. Our company had notable experience of that. We had our line approaching completion and some considerable track was laid between Deer Lodge, Montana, and Missoula, right side by side with the North-

ern Pacific. They were building at the same time and there was an unprecedented flood and the loss to our company from that flood aggregated something in excess of $600,000. It covered a matter of 75 miles or more, and about that same season we had on the other side of the Rocky Mountains in the Jefferson River and in the Musselshell River, a number of bridges in which we had put in the piers and the steel work had been delayed and we were carrying our construction trains over on false work and a flood came and so much drift collected in front of the structures that the stream was blocked and our permanent piers and false work was more or less washed out and we had to replace it, and in addition to the cost of replacing it was the delay to the work. Another contingent item was where a great many timber structures that were built and subsequently replaced by embankment, the intention was to make the embankments from the outset, but there was no material available within reasonable distance by haul by contractors' outfit and it was necessary to put in timber structures to take care of our construction train service, and fill by earth by train haul. The inspection of the completed property after the lapse of some years would not disclose the original expenditures for the trestles. Another contingent item is classification for material. There are many kinds of material which at the time that they are opened up would properly be classified as loose rock or hard-pan, and yet after the surface is exposed to weather they resemble common earth and in going over a road and looking at the surface or slopes of the cuts one would say confidently that that excavation was made in earth whereas by going into it more thoroughly you would find that it was hard-pan or a considerable portion of it was hard-pan. Another contingent item is the diversion of highways and private roads and waterways for one reason or another. It is necessary oftentimes to divert these, the cost of which involves extra right of

way, extra grading, oftentimes the moving of buildings and structures of various kinds. After the work is completed, especially after the lapse of a few months or years, there is no evidence of the diversion of highways, farm roads, no evidence oftentimes of the diversion of streams. A great many contingent items come in from unanticipated or unforeseen expenditures due to delay in transportation of material or equipment or men. In the building of a railroad there are large amounts of material to be purchased and gotten in hand and it is necessary that they should be gotten in hand in their proper order. Track cannot be laid if we have an abundance of ties and have no rail or if we have the rail and have not got the fastenings. Track cannot be laid unless we have the material in hand for the bridges and the culverts. If the material is not there, then either the track laying is deferred and the force of men and equipment stands idle or an expedient is resorted to which costs in many cases a great deal of money. It is of almost daily occurrence that a contingency arises in which you cannot stop to count the cost. It must be met and overcome no matter what it costs and if the material is not on hand for a bridge the ties will be taken and they will be cribbed up, and the track carried over that way. Then after the track is over and the material does come, why those ties, track, will be taken out and the bridge put in. That is only one of thousands of instances of that kind, all of which add to the cost of the construction. They cannot be avoided, or foreseen. They can be foreseen to this extent, that we know that they will come in all large construction and likely to be met with, but I say confidently that one who has not been right on the ground and seen and had experience with these conditions, can hardly realize the frequency with which they occur and the pressure that is brought to bear oftentimes to overcome them irrespective of what the cost may be. When we started to build our Puget Sound line, one

of the first things that we had to do was to cross the Missouri River and we had to get our material across, not only our material, but all the contractor's supplies. We were in a country where there wasn't anything, you might say, and we had to build a temporary bridge over the Missouri River and our construction account shows that after we credited up as much of that temporary construction to the construction of the permanent bridge as was reasonable and proper, that we spent in excess of $70,000, simply for facility to get a track across the Missouri River, that never would show up in any inventory that might be made of that piece of property today. The building of that bridge involved several contingencies. The river is subject to rather rapid rises. It has a very strong current and we had an unexpected break-up in the spring, and we lost a partly completed caisson. It was swept away from its moorings, taken down stream two or three miles, and the cost of recovering it was more than it was worth and it was abandoned. We had several fatal accidents. The cost of that bridge alone was slightly over $1,000,000, and we had, I think, two or three fatal accidents. In my judgment it would be conservative to put a contingent item of ten per cent. on the entire cost in making an estimate of the fair reproduction cost of the Duluth, South Shore and Atlantic road in the Northern Peninsula of Michigan. While the contingent amount on some items might not be as much as 10 per cent. on others it might very readily be much in excess. That would not include 10 per cent. on the cost of organization and legal expenses and interest during construction and engineering and the like, but upon the physical items, the cost other than the overhead items. In my opinion the 10 per cent. would be the average of all items and not the amount of contingencies applicable to each item. I think it is universal in making an estimate for new work, to allow for contingencies, add a percentage that cannot be defined,

and it has been our practice to add 10 per cent., and to add 10 per cent. after we had taken unit prices that in a measure made some allowance for the same. What is done will depend largely upon the thoroughness with which the estimate is made. The contingencies are variable, and you might build a hundred miles of railroad this year and have certain kind of contingent items and rebuild a piece of line side by side and of identically the same character another year and the contingent items be different. Contingent items depend upon the weather, upon labor conditions, and then again the contingent items, take for a hundred miles of railroad in one state, might be of a certain character and in another state they might be of still a different character. It is the unexpected that is covered by the contingent items. Contingencies would be a greater average on some classes of work than on others. For myself, I have gotten at the average by my experience and my observation. Sometimes the contingencies may not be as much as is estimated. At other times they may be much in excess, and an estimate of a certain percentage for contingencies I think from the very nature of the case, must be an estimate, and cannot be arrived at with any exactness."

"I am as confident as I could be of anything that has not occurred that in the reconstruction of the South Shore road, we would have casualties, accidents, which would involve injury to persons and property, which would be contingent items such as those I have mentioned, for work of that character, which would extend through three or more seasons. It is also quite sure that there would be contingent items in the way of floods. There would be contingent items in respect to classification. I doubt not that there is considerable material, the exact character of which would not be evident on a superficial inspection of the property. I do not see how that extent of railroad could be built without involving diversions in

the highways, in farm crossings, and in diversions of streams. Those contingent items would surely occur. There would be contingent items in connection with the construction of the road over or under or across other railroads, electric and steam; due to the crossing of telephone and telegraph wires which would have to be changed; due to the construction in the cities in which paving would be disturbed, water works pipe or sewers or things of that kind. There would be other contingent items, that would be more or less of the general character of those I mentioned. In my judgment there is a reasonable probability that these or a certain proportion of them will occur in every railroad that is constructed. The percentage would vary according to weather conditions, season of the year and character of the country through which the road was built. The contingent items would be smaller if all conditions were favorable, such as casualties, floods and things of that character. The items of farm crossings, highway crossings, of pavements in cities assume the passing through of a settled territory. If the territory is sparsely settled, the possibility of those items and the amount and percentage for them would be smaller, and for exactly the same reason, other contingent items would be more. There is, as I remember the country, a large proportion of swamp land and soft land, the surface of which is soft and yielding, and there would be a more than usual contingent item in the increase of earth work on that account. The country traversed by the South Shore railroad is not as accessible for the getting of supplies and men as a similar length of railroad would be in many other sections of the country, and the difficulties of getting labor and holding labor and getting supplies in, would be enhanced over and above what it would be in most any other section of the country, anywhere within a radius of 500 miles, or a thousand miles. Where the work is contract work, the contractor would bear the cost of casualties

and they would enter into his price. If he was financially able to carry out his contract, he would bear that burden, but contractors are not always able to do that, and when they fail, the railroad company has a contingent item that often varies considerably. I think the conditions might possibly be as favorable or as unfavorable that the contingent items might be as little as 5 per cent. and possibly as great as 15 per cent."

Mr. Hogeland testified (R. p. 475):

"The estimate of reproduction cost of a railroad should include items for contingencies. We found that during 5 years, 1903-1907, the total amount of additions and betterments to the Great Northern was estimated at $25,223,738.65, with an actual cost of the work of $29,096,067.47, an increase of 15.35%. The estimates were itemized in detail, and the engineers were familiar with the work to be done. That was the average; some actual costs fell below estimates. The estimates were made by competent assistants, and the work carried out by different, best fitted, departments."

Dean Cooley, probably the most eminent man in the engineering profession on the problems of public utility valuation, testified (R. p. 684-6):

"I have devoted practically my entire time, outside of teaching, to valuation work since 1899, and have directed or had to do with, or caused to be made, physical valuations of public service and railroad properties. The aggregate value of the various kinds of public utility properties I have had to do with is about twelve hundred and fifty millions. Those properties are steam and electric railroads, electric light and power plants, gas plants, water power and water power electric plants, and water works.

In 1900 I had charge of the valuation of the physi-

cal properties of all the steam railroads of Michigan, and in 1902 I assisted the Government in Newfoundland in the valuation of the mechanical elements of its railroads. Subsequently, I was Consulting Engineer in the valuation of the Wisconsin railroads, and I had charge of the re-valuation of Michigan railroads in 1903 and 1905.

I have, in a general way, kept myself informed of the progress of valuation practice to the present time; I have had something to do with it every year since 1900, and have from time to time engaged in discussions, prepared a few papers, and made a number of addresses, and lectured on the subject for the past five or six years."

"There is now a well known engineering practice on the valuation of public utilities, especially steam railroads. I believe the general practice followed in Michigan in 1900 has been followed in other states where valuations have been made, with some variations. Prior to 1900, there had been no physical valuation of railroads on a large scale. The method adopted in the Michigan valuation was to discover the cost to reproduce the existing properties, with all new elements, then to discover the extent to which the elements actually in use had depreciated, and to affect the cost for new elements by this depreciation, and to determine what we call the present value of the physical elements.

The methods followed by me in Michigan have since been known as the reproduction method. That method has generally been applied where physical values of steam railroads have been undertaken. I think the engineering practice has in general become settled upon the principles that follow in those valuations. There has been considerable discussion of different methods, but I think the majority of engineers have clung to the practice inaugurated in 1900, with some variation in details.

Since the Michigan appraisals, I have given no at-

tention to the South Shore, except in a general way, and have not been engaged by plaintiff to do work or testify for it in this litigation, and have had no formal conference with its representatives. I have had, in a general way, some idea of the progress of the work as it has been going on.

In a general way, in the light of the development of the practice since the 1900 appraisal, that is substantially the right way to ascertain reproduction costs of railroad property,—the one which has been followed,—and only the matter of overhead charges has been more completely elaborated than was possible in 1900. It embraces other elements, and treats them in slightly different ways, e. g., contingency, instead of being put in as a lump item spread over the entire cost, is now divided into two parts, at least, and distributed, varying in amount for the different elements, being larger for some and smaller for others. I have been accustomed to divide it into (1) contingency of construction and (2) contingency of inventory.

The contingency of construction is rather a variable item upon different roads. It is illustrated by such things as sink holes, unknown conditions surrounding bridge foundations, etc. The contingency of inventory is intended to cover the omission of things in the schedule. There never has been a complete inventory, I suppose.

In the Michigan appraisal, the contingency item was expressed by a given percentage of the physical items and some of the overhead items; it was there taken at 10%. I should—10% was as near correct as any other percentage. I have never found that I could depart far from it in my own practice; I have in a few cases dropped a little below, and in other cases gone above. I think 10% would apply to a property like the South Shore. The only question which might properly arise concerning a 10% charge

might be as to the items to which it is applied, whether to the entire valuation, including overhead costs, or that excluding the overhead costs. My recollection of the 1900 valuation is not entirely clear as to whether we applied contingencies to overhead costs; we did apply it to the physical schedule, including lands; we applied it in the same way to all the railroads of the State.

Since then, demands have been made by engineers to ascertain the appropriate percentage which should be charged to each item. We attempted to be more specific in the application in 1900, but could not make any investigation, because that valuation was completed in practically 90 days. The nature of the items or costs covered by contingencies do not permit of such analysis as to enable the appraiser to apply an appropriate percentage to each item of the schedule. If the engineer could satisfy himself in advance as to precisely the right element to call for contingencies, he would not need any contingency item. Broadly speaking, the item is to cover the unexpected things in construction and omissions in inventory. Because items are unexpected, and the omissions unknown, the items are called contingencies."

"In the absence of specific information which might be matters of record, and which would enable us to eliminate, to some extent, the element of doubt, I should not want to make an estimate of the cost of D. S. S. & A. or any other railroad, without allowing 10% for contingency item. I should not want to choose any other percentage in preference to the 10%, unless I had the very best reasons to do it.

The fact that on some items, as ballast, contingencies were much less than 10%, or nothing, would not impair the general truth of the statement or my opinion that 10% of the total would be about right. As to contingency applied to equipment, the railroad could reduce its contingency item by contracting to have equipment delivered at a stated price. This would

not reduce the contingency item to the builder, which goes in the cost of it. As the contingency is in the cost to the railroad, it does not have to allow another 10% but must allow something less.

I have known of instances where the actual cost came below the estimated cost—not as related to railroads though, but to buildings; I don't think of any such thing in railroad values just at this time.

I don't think there is very much to the claim that conditions which bear upon contingencies are different in case of an existing property and property to be built, where the conditions are not so well known. If the record showing the actual construction cost is available when the valuation is made, then you have information to enable you to eliminate a part, at least, of the contingency item, but, without complete records for the existing property, I think it is more liable to be far more accurate to determine a probable contingency cost from original specifications and plans than it would from an inspection of the property existing.

This is mainly for the reason that conditions existing at the time of construction are described in plans and specifications, and you can make your estimates accordingly, but, when you see the structure after it has been built for a time, there is, or may be, no knowledge of the conditions under which it was built. It is almost impracticable to make a good estimate of the cost of a building without first having plans made to get the proper estimate of quantities. I am of the opinion, after a good many years of thought on that particular point, that it is not only possible, but quite probable, that a more careful estimate of contingencies can be made, from plans and specifications, when the building is first built than after it is built.

I think that would apply to the valuation of the South Shore, unless the actual costs are matters of record, and are available. The lapse of time since

making the record might affect the matter seriously, because the conditions under which the work was done originally and under which it would now be done, might vary greatly.

At the time of construction of a railroad, the quantities and classes of material may, during the period of construction, be definitely ascertained, but on appraisal, when records do not disclose quantities and classifications, it is not easy to ascertain correct quantities and make appropriate classifications, unless care is taken to make careful measurements from the actual structure.

It is more difficult to determine the proper estimates years after the structure was built, and then there are many things which have gotten into the structures since they were built that did not enter into the original cost, such as the sinking out of sight of ballast. Before the work is done, the natural surface of the ground at the centerline is known; after the work has been done, unless profiles and records have been saved to disclose it, it cannot be ascertained with accuracy, unless you make careful survey again.

In the Michigan appraisal, I applied at least 10% to all the physical items. In my opinion, the amount of contingencies varies among the items, some items taking none and some more than 10%. The application of the 10% was to arrive at a sum which would be fair to cover the item, including both construction and inventory charges. The 10% was a contingency item to be applied to the property as a whole and not to the individual items; it would not be right to say that I had valued a specific item at the amount placed upon it plus 10%. In the nature of things, the item of contingencies cannot be defined, nor can all the things properly covered by it be listed, either in advance or in the work of the appraiser."

"The contingency item is not properly an overhead cost; it is a construction cost, and belongs in the body of the inventory."

The testimony shows that every engineer knows, from the history of his profession, that although all that appears in a railroad grade is a certain amount of earth in sight, the cost of which can be computed at so much a yard, yet that there must have been on such work certain expenditures, unknown to the estimator, which cannot be discovered or inventoried, but which were, nevertheless, indisputably there, and would be there if he himself were redoing the work. History has shown that these expenditures take place on every important piece of construction work; that they occur with almost fatal regularity, regardless of the care with which plans may be made to forestall them, and so regular are they in their occurrence that engineers everywhere recognize that they must add to their estimates of work, to be done, a certain additional amount to provide for the unknown, and they call this unknown "contingencies."

So, in estimating the cost of reproduction of property already constructed, when the work was done many years ago and time has destroyed all records of actual cost, these same engineers know that there must be added to the various physical elements found by them the element of this unknown cost, and they compute the same upon the proportion at which it has been found to occur in other construction work. This is not a matter of speculative dreaming on the part of the engineer; *it is his knowledge of certainty in the future from his experience and the experience of his profession in the past.* It is an elementary principle of logic that although a certain result may follow from a certain set of circumstances in one case, no conclusion may be drawn that the same result will always so follow. But when it is shown that from the same circumstances the same approximate result follows times without number, the conclusion must be that it is not an accidental happening, but is the logical result to be apprehended from such circumstances. We

do not base our opinion here that the Master's allowance for contingencies must be accepted because Mr. Riggs found such contingencies to occur on one piece of construction in the past, but because he has found them to occur on every piece of work ever performed under his direction; because Mr. Loweth has found them to occur on every piece of work ever performed under his direction; because Mr. Hansel and Mr. Hogeland and Mr. Cooley have found them to invariably occur on every piece of work ever performed under their direction; because the engineering profession, as a whole, from the days of the first engineer, have found them to so occur. We do not and cannot claim the Master's allowance to be the mathematically exact expense of this item, for it is below the allowance made by even the defendants' engineer. We do claim, however, that the figure adopted by him is so low and conservative as to relieve it of any possibility of error.

SCHEDULE 38.

Legal Expenses During Construction.

SCHEDULE 39.

Organization, Administration and General Expenses During Construction.

The plaintiff claims that allowances should be made for these items of value in the inventory, while defendants claim that no amount be allowed whatever for either of these schedules.

These elements of value in the property were recognized by the valuation engineers for both parties.

In computing the item of legal expenses, Mr. Riggs used the percentage method, applying ½% to all the preceding schedules. Mr. Hansel made an estimate of the

amount which would be required to be paid for legal expenses on a reconstruction of the road and fixed the item at a lump sum of $50,000., which was considerable less than the Riggs estimate. The Master adopted the Hansel theory and amount. (Master's Report, R. Vol. III., pp. 191-3).

In estimating organization, administration and general expenses, the engineers also differed in their theories, Mr. Riggs applying the percentage method, allowing 2% on the previous schedules and Mr. Hansel fixing it at a lump sum of $100,000. The Master adopted the Hansel theory, but increased the allowance to $125,000., which was considerable less than the figures of Mr. Riggs, and was abundantly justified by the testimony. (Master's Report, R. Vol. III., p. 194).

In view of defendants' contention that these items of value should be altogether disregarded, we shall discuss somewhat the nature of these allowances.

In this case they are not claimed in any way as promotion expenses, but as construction costs, just as much construction costs as the grading of an embankment. Mr. Riggs defines these expenses during construction as follows:

> "Legal expenses during construction is an item that is intended to cover the cost of services of attorneys during the organization and construction of the property, and to cover the actual expense of legal services in connection with the building of the property. On all of the construction work with which I have been connected there has been the element of legal service incurred throughout. The relation of the engineer during the construction of the roadbed across the lands acquired by the company require pretty constant services of an attorney; there are frequent controversies with contractors regarding the carrying out of construction contracts. The services of attorneys are needed frequently through-

out construction in the matter of looking after and caring for damages to property of adjacent owners, and damages by the setting back of water, building new embankments, by fire set by contractors or company equipment during construction, and on account of injuries to persons during construction; in short, I have never seen an extensive construction operation carried on where the services of attorneys were not almost as constantly in demand, although not in as large a force, as engineers. This item is one that engineers rarely include in their detailed estimates by reason of the fact that it is in the nature of an overhead charge placed by the general officers of the company. It has been customary in all of the state appraisals and in all of the appraisals made for railway companies, to make an allowance for legal services, either alone as an item by itself, or in connection with the item of engineering. It is usually expressed in a percentage of other items, just as I have done it here, and the percentage that I have used, ½ of 1 per cent, is a percentage that has been most generally adopted in valuation work during the past ten years. There was an allowance of ½ of 1 per cent made in the Michigan appraisal of 1900 and I think applied to substantially the same items as I have applied it (659-61).

"This item (organization, administration and general expenses during construction) is inserted to cover those expenses of construction which must necessarily be incurred in connection with the incorporation, organization, preliminary financing and administration of the property during the construction period, and the general expense covering clerical help, accounting forces and other official and clerical organization during the construction period, and the item of general expense, office rental, supplies and expenses incurred during the construction period and not otherwise provided for. I have not included in this any item to cover discount or bonus, nor any commissions, nor items of that nature, but I have included

a figure that I believe to be reasonable, to cover expense that would necessarily and properly be incurred in the construction of this railroad. In the past six or seven years I have been in a position to know much more about the actual cost of items of legal expenses during construction and of organization, administration and general expense during construction than in early years where I was on construction work purely as an engineer, and I do not know of a single instance where these items have not been incurred in large amount, and I do know of instances where these items exceeded the percentages named by me very materially. There was an allowance of 2 per cent made in the Michigan appraisal of 1900 to cover organization, administration and general expense during construction. Every appraisal of railroad properties that has been made by state authorities or railroad authorities has included this item under this name or some similar caption, and has used as a percentage a figure varying from 1½ per cent to 3½ per cent, most of them 2 per cent or 2½ per cent (662-4)."

The legal expenses paid and the expenses paid for office administration during the period of construction are actual outlays made by the owners of the road to bring the road into condition to operate. After the period of operation begins these items are charged into operating expenses. If, prior to the period of operation, the builders of the road are not entitled to charge them into capital account as a part of the cost of the property on which they are entitled to earn a return, the expenditure is forever lost and the remaining schedules without these expenditures do not show the true cost of construction.

So far as we have been able to ascertain an allowance for these items has never been seriously questioned in any rate case.

SCHEDULE 40.

Interest and Taxes During Construction.

Defendants contend that nothing whatever be allowed for the items in this schedule, even though the valuation engineers for both parties have made such an allowance.

The engineers differed somewhat in their method of computing interest during construction. Mr. Riggs estimated the time of construction as three years and allowed interest on the total of Schedules 1 to 38, inclusive, for one-half that period of time, which was shown by the testimony to be the generally accepted method for computing this item. See his testimony (R. p. 476); Cooley (R. p. 690-1).

Mr. Hansel, however, undertook to estimate the time during which the money required for each construction account would be invested before earnings would commence, and he made a schedule based on such estimate, assuming that the entire period of construction would be two and one-half years. He used 6% as his interest rate, and all the witnesses testifying on the subject agreed that the money for the construction could not be obtained at a less rate. (See Hansel's Appraisal, Deft. Ex. 15).

The Master found that the weight of the testimony was to the effect that the total time for the construction of such a road would not be less than three years. He adopted the Hansel method for computing this schedule, changing it, however, to allow for this greater period of time. (Master's Report, R. Vol. III, pp. 191-20).

The amount allowed by applying the Hansel method in this way was considerably less than if the method of Mr. Riggs had been used, and as thus made, the allowance was more than conservative.

Mr. Riggs allowed nothing for taxes during construction, but Mr. Hansel allowed the sum of $50,000 for this item. The Master found that a reasonable allowance

for taxes during construction is an element of the cost and value of the property, which must be included in a railroad valuation, and that the amount allowed by Mr. Hansel was too small, as Mr. Hansel expressly testified that his estimate was made on the assumption that some special arrangement would be made with the taxing officers by which a portion of the taxes which the property would regularly be required to pay would be waived, amounting to an assumption that the officers of the state would refuse to do their duty. The Master allowed for this item the sum of $100,000, which is less than one-half the amount which the plaintiff has paid to the State of Michigan each year for the past eight years for taxes on its property. (Master's Report, R. Vol. III, pp. 201-6.)

SCHEDULE 43.

Working Capital.

The Master allowed for this item an amount equal to the average monthly balance in the hands of plaintiff's Treasurer in the fiscal year 1913, after apportioning a portion of said sum to the Wisconsin operations on the basis of track miles. (Master's Report, R. Vol. III, pp. 208-11). It was the defendants' contention that no allowance should be made for this item, but the evidence in the case abundantly justified the Master in making such allowance. That working capital is a proper element of value in a rate case, has been recognized and approved by so many courts and commissions that it makes the citation of authority almost unnecessary. We cite, however, the following authorities on this point:

Cunningham *vs.* Water & Light Co., 5 Wis. R. C. Rep. 306.

Lincoln Gas & Electric Co. *vs.* Lincoln, 182 Fed., 926.

Cumberland T. & T. Co. *vs.* Louisville, 187 Fed., 646.

In reviewing this schedule, the trial court expresses the opinion as follows:

> "Defendants have not allowed anything for working capital, although the record shows that plaintiff has had on hand upwards of $100,000 for use in its current business. Working capital is necessary to the successful operations of any railroad, and when actually possessed, should be included in the appraised value of its property" (R. p. 83).

APPRECIATION.

In addition to the items of property contained in the appraisals of the two valuation engineers, there is one other element of value, which the Master found should be inventoried. By some witnesses it is called "appreciation"; by other witnesses it is called "solidification and adaptation of road-bed". It is the element of value which accrues to a railway from the settling and solidification of its banks, the gradual cleaning out of its cuts and the sodding of its slopes, and which element of value comes only by constant work on the roadbed and by lapse of time. Every engineering witness, who testified in this case on the question of valuation, agreed that this was an important item and its value would amount to a large sum.

Mr. Riggs testified (R. p. 144):

> "The cuts and fills on this road are in a condition today of absolute stability due to settlement, due to the fact that all of the erosion by water and various other forms of sloughing and settlement that will take place, have taken place, and that many, or I may say most of the embankments and slopes of cuts have become sodded over. The roadbed of the company is in very much better condition today than a new green unseasoned roadbed would be. It is better because there will be no settlement and the expense of main-

tenance is very materially less on an old, well seasoned roadbed that has become thoroughly adapted to conditions of drainage, that are formed or created by the construction of roadbed. As to the amount of labor required to maintain the roadbed of this company in the condition it is in now, compared with the same if new, in my judgment the cost of track maintenance would be increased on an average by the addition of two or more men per section for the first six or seven years to take care of the work of cleaning out of cuts and of replacing earth around embankments that had sunk down or been washed away."

Mr. Young testified (R. p. 264):

"A railroad embankment which is reasonably well maintained for railway operation appreciates in value. The road when it is first built settles constantly and it is necessary to employ a larger number of section men and do more work on the track in order to keep it in good operating shape, and the shoulders on the embankment wash down and it is necessary to haul more material on for shoulders until banks and cuts get grown over with vegetation so that they stay practically the same. Growth on slopes adds to the value of the property. It gets in fair shape in five or six years, and after ten years, it is practically permanent."

Mr. Hansel testified (R. p. 567):

"At the end of two and a half years you would not have as good a roadbed because it has to have age to season it; that cannot be included in reproduction. If the operation is successful, as to that item, reproduction estimate is always necessarily less than actual value as an operating tool. As an instrument of commerce the road bed solidifies by time and operation over it is better. Much of the road bed in flat, soft country is made of gravel, hauled from pits over

a long period of years. This is done at an increased cost over reproduction new estimate. It is impossible to say when construction ends and operation begins. A considerable amount of yardage must be moved after the contractor finishes and during the first years of operation to take care of settlement, shrinkage, maintaining shoulders, etc. As a practical matter, until you have sod on the bank, you must keep renewing it."

Mr. Cooley testified (R. p. 692):

"Some elements of the property appreciate in value with lapse of time and maintenance, being particularly that part of the road bed below the ties. I have never given study to the subject or attempted to analyze any railroad property with a view to determining what the appreciation might be. While we considered the elements in the Michigan valuation, we made no figures or allowances. It is my opinion that appreciation should be taken into account in getting at the present value. Assuming two properties with reproduction costs the same, one brand new and the other ten years old, the present value column of the older would be greater than that of the newer road. The appreciation comes about in increased solidity of embankment and increased thickness of ballast, which is constantly put under the ties and distributed in the embankments, thereby enriching them, making them more stable, improving the drainage, increasing the safety, in greater solidity and increased permanence of road bed and the ease with which the grade and alignments are maintained, thereby reducing operating costs, the hauling power and the maintenance expense. Such appreciation of an old road bed with lapse of time is recognized as a substantial element of value by railroad engineers generally."

Only one witness furnished a standard by which the value of the element of appreciation could be measured

in money. His testimony on this point stood uncontradicted. The witness was Mr. Riggs, who testified that this value could be expressed by the additional cost of two or more men per section for the first six or seven years after the construction of the road. All the elements were in the case for putting this estimate of Mr. Riggs into figures, and, using two men and six years, the amount arrived at was $553,000.00.

The Master, however, allowed only the sum of $300,000. (Master's Report, R. Vol. III, pp. 212-221).

There is abundant authority in law, as well as in reason, for the inclusion of this item in the value of plaintiff's property, and we need go no further in the search for authorities than to refer to the Minnesota Rate Cases, *230 U. S. 352*, where this court expressly recognized that there may be such an element of value, which when properly proved, should be allowed.

The trial judge, however, in his opinion suggested that

> "the claim for appreciation of roadbed is quite uncertain and speculative. Undoubtedly a well maintained roadbed increases in efficiency and value with age. The older it becomes, the less is its cost of repairs and upkeep. But in a case of this kind an allowance for such appreciation must be supported by positive proofs, which measure the value therein in terms of money."

Answering this assertion, that in this case the proofs as to the amount of increased value in the road bed by reason of appreciation were not "positive proofs which measured the value therein in terms of money", we shall say that from the outset in considering this problem we were confronted with the practical difficulty of obtaining clear, definite and exact mathematical proofs on this point, for such an item of value is concededly not capable

of exact mathematical measurements. We might, to be sure, have secured an engineer's or contractor's estimate of what the cost would be if men were set to work all over 491 miles of new road bed, with tamping tools, tamping and tamping and tamping, until they had made the roadbed in as solid and compact a condition as has resulted from the action of the elements, the rain and the frost and the pounding of trains through thirty and forty, and in some portions the line, through sixty years of constant use. We could also have furnished an engineer's or contractor's estimate of what it would cost to take a new road bed of 491 miles and sod the slopes in as complete and satisfactory manner as the slopes of plaintiff's railroad are now sodded, making the slopes proof against the washing away by the elements. But when we had obtained such figures and presented them to the court for consideration, they would have been so enormous that we would have difficulty in getting any court to adopt them. But because no exact calculation can be made as to any certain element of value is no reason why that value should be disregarded if it is possible to adopt a figure which is so moderate that there can be in the minds of the court no question as to the figure being far within the limits of any calculation that could possibly be made. For example, we believe that it would not be difficult, on very general testimony, without detailed estimates or computations, to obtain a finding from any court that the value of the real estate in the District of Columbia is at least $10,000,000. So in the case at bar, we believe that the master was more than justified in the conclusion which he reached, that

> "As the fact of appreciation is proved by uncontradicted evidence, and as there is some evidence of the amount of that appreciation, which evidence is uncontradicted, and as the complainant is clearly entitled to the amount of the appreciation when shown,

it seems to be clearly my duty to give effect to the evidence as to the amount of appreciation, and allow the amount thereby shown for appreciation in the value of the complainant's property; but with the recommendation, however, that this finding be neither approved or disapproved without first giving opportunity for a fair trial of the question by the introduction of further evidence by each party."

"That my allowance of $300,000 for this item of appreciation is conservative I am fully convinced, in view of the testimony of all the witnesses as to the greatly increased value of complainant's roadbed by reason of adaptation and solidification, and my conviction in this regard finds further confirmation in the fact that in the Minnesota rate cases, the State conceded that the adaptation and solidification of the roadbed of the Northern Pacific Railroad amounted to the sum of $1,613,612, which was over 15% of the remainder of the grading item as found by the Master, whereas the allowance which I have made is less than 11% of the remainder of my grading schedule."

"As to the propriety of this allowance, the only possible question is the above described question as to the sufficiency of the evidence as to its amount. That there has been some appreciation in the value of the property is shown and not disputed; that in order to reach a proper estimate of the value of the property under the method of valuation employed in rate cases, any appreciation in value that has taken place must be added to reproduction cost less depreciation, there is no room for question either on authority or on principle. In such method of valuation, depreciation must be allowed, and depreciation cannot be allowed without the allowance also of appreciation. The two are there vitally and inseparably connected. The latter is the necessary corollary of the former. Every reason which calls for the allowance of depreciation calls equally for the allowance of appreciation. The ground on which depreciation

is allowed in such method of valuation is that it is a necessary step in determining the amount that it would cost to acquire the property in its present condition as regards depreciation, it being assumed that the purchaser will be willing to pay for the property, its cost of reproduction less existing depreciation. But to determine value it is not enough to find only what the purchaser will be willing to pay; it is equally necessary to find what the vendor will be willing to accept, and in finding this, it is just as necessary to allow for appreciation as it is to allow for depreciation in finding what the purchaser would be willing to pay. In this case the allowance for depreciation on the entire property amounts to a very large sum —being in excess of $2,000,000, and it is allowed because it appears that such depreciation exists. But it also appears that while that depreciation was taking place, some appreciation was also taking place, and it would be a manifest injustice and an irrational application of the method of valuation employed to deduct $2,000,000 from reproduction cost on account of existing depreciation and fail to add anything on account of existing appreciation" (R. Vol. III, pp. 219-221).

It will be noted that among all the questions considered by the Master in his report, this is the only one as to which he suggests that the parties be allowed to offer further proof; and although defendants were given every opportunity so to do on the hearing before the court, they introduced not a syllable of testimony on that point. The only proper conclusion to draw from their failure to meet this issue when the opportunity was afforded them is that they must have been advised by their engineers that any attempt to attack the conservative figure adopted by the Master would result in an increase rather than a decrease in the figures to be taken as the value of plaintiff's property.

DIVISION OF PROPERTY BETWEEN MICHIGAN AND WISCONSIN.

Nearly all of the property owned by the plaintiff can be easily allocated either to Michigan or to Wisconsin. As to property which is in use in both States, such as rolling stock, methods of apportionment have been used which have been accepted by both parties as proper.

The only real dispute between the parties is as to the shops and round houses of the plaintiff, which are located in Michigan, and the machinery therein. Defendants claim that a portion of these values should be assigned to Wisconsin. It is defendants' theory that as the shops of the plaintiff, which are located in Michigan, are used for the repair of equipment which is used in both States, and as the round houses in Michigan house engines which run in both States, a portion of their value is attributable to the Wisconsin operations. So far did defendants go in their theory, that they even asserted that a portion of the value of station buildings in Michigan should be assigned to Wisconsin, on the ground that such buildings are at times used by passengers who travel into Wisconsin. We do not think, however, that defendants ever carried their theory as to station building as far as to make actual apportionments. The Master yielded to this contention of the defendants as to the general shops at Marquette, and the round house at Thomaston, which is near the State line, and houses locomotives running in both States. None of the other round houses are used for locomotives engaged in the Wisconsin operations. The Master assigned to the Wisconsin business a portion of the value of the Marquette shops and the machinery therein upon the basis of the track miles in Michigan as compared with the track miles on the whole line, being the basis contended for by defendants, and also assigned to Wisconsin a portion of the value of the Thomaston

round house, on the basis of the track miles between Marquette and Superior, these being the termini of the runs of all locomotives housed at Thomaston. (Master's Report, R. Vol. III, pp. 222-5).

Inasmuch as these shops and these round houses are located entirely in Michigan, are taxed as Michigan property, and the plaintiff would have to have them to use in its operations if it had no lines in Wisconsin, we submit that their whole value should be included as Michigan property, upon which the plaintiff is entitled to earn a return. The theory of defendants, if carried to a logical conclusion, would involve the property into such a complication of apportionments as to make the real value altogether impracticable of ascertainment. For example, there are small repair shops at Superior, Wisconsin, which are used for repairing equipment which runs into Michigan, and, upon defendants' theory, such shops should be valued and a portion of the value assigned to Michigan. So there are round houses located in Wisconsin which house locomotives running into Michigan. If, on defendants' theory, a portion of the value of the station buildings in Michigan should be assigned to Wisconsin, so also should a portion of the value of the station buildings in Wisconsin be assigned to Michigan, and so on with almost every item of property. We submit that the true rule should be that all property having a situs in Michigan should be valued as Michigan property.

EFFECT ON THE VALUATION OF THE INCREASE IN UNIT PRICES IN 1917.

In considering the operations of the past, it is the claim of the plaintiff that the court should adopt a value for each year at least as high as that adopted by the Master in 1913; and for the subsequent years, a value at least as high as that value plus the net addition.

For the year 1917, it is the claim of the plaintiff that the court should adopt a value which may not necessarily be based upon all the high prices which the plaintiff in its computations put on labor and materials in that year; but which must take into account these prices of labor or materials, in so far as the court is able to conclude that they represent actual prices as they will exist in this country for some time to come.

One thing took place on the hearing before the court, which tended to emphasize the situation most clearly. Mr. Kates, the engineer who valued plaintiff's equipment for the defendants, testified that he valued the equipment for each year during the years 1914 to 1917 according to the normal values of all equipment of the same character upon the Western Railroads of the United States in the period between 1910 and 1914; except that where he found an actual purchase by the plaintiff of new equipment during the years 1914 to 1917, he substituted for his estimated figures the actual purchase price of that equipment. It appears that in the year 1917, the plaintiff had actually purchased one new locomotive. The price fixed by Mr. Kates for that locomotive, being the actual purchase price thereof, was more than 60% in excess of the value which would have been placed by him on that locomotive under his so called "normal price" method.

The plaintiff has on its railroad many locomotives of modern design, which, if they were destroyed today, the plaintiff would wish to replace in kind. To replace those locomotives in kind would not cost the amount which Mr. Kates fixed as their value, nor which the plaintiff's witnesses fixed as their value, nor the amount which the Master found to be the value. It would cost 50% and in some cases more than 100% more today. The increased replacement cost does not only apply to locomotives, but to everything else in the whole inventory. We think that

there is no question that the replacement cost of the whole railroad if it were obliterated tomorrow, would be 50% in excess of the replacement cost in 1913. It will continue to be greater than in 1913 during the next year and the year after, and many years after that, if the opinions of the witnesses, and the conclusion which we all in our own minds have as to the permanency of present prices is at all true. Therefore, it is our belief and contention that it is the duty of the court to give effect to the large increase in the replacement costs of plaintiff's railroad as in their best judgment they consider such increase may be reflected in the conditions of tomorrow and the conditions of the future, so far as the future appears to us now.

Respectfully submitted,

WILLIAM D. McHUGH,

JOHN E. TRACY,

Counsel for Plaintiff and Appellee.

No.	SCHEDULE
1	Right of Way and Station Grounds—Including expenses of purchase and condemnation, abstracts, fees and commissions—Not included in 1913 Riggs Appraisal
2	Real Estate Not Used in Railway Operation—Including expenses of purchase and condemnation, abstracts, fees and commissions
3	Grading—Including clearing, grubbing, grading, channels, drainage, overhead, corduroy construction, retaining walls, rip rap and sea walls
4	Tunnels
5	Bridges, Trestles and Culverts—Including foundations and superstructures over water courses, streets and other railways including ¾ z on bridges and wooden and steel guard rails
6	Ties—Track Cross Ties—Not including switch or bridge ties—including transportation, handling and preservation of main line ties
7	Rails—Including transportation, handling and inspection of main and branch line rails—not including steel guard rails on bridges
8	Track Fastenings—Including transportation, handling and inspection of main line fastenings—not including fastenings used on bridge guard rails
9	Frogs, Switches and Crossings—Including transportation, handling, inspection and labor of placing in track and including all head blocks and switch ties
10	Ballast—Including cost of material, loading, transportation, unloading and placing in track of ballast for main and branch lines
11	Track Laying and Surfacing—Including distributing and laying rails, ties and fastenings, track construction and surfacing, but excluding side track and switch construction
12	Fencing—Roadway fencing and snow fences, not including stock yards or shop yard fencing, or fences around stations or section houses
13	Crossings, Cattle Guards and Signs—
14	Interlocking and Signal Apparatus—Including cost of transportation, foundations and installation
15	Telegraph and Telephone Lines—Including material, labor and transportation—All lines joint ownership with Western Union—D., S. S. & A. proportion, labor only
16	Side Tracks—Including grading, ties, rails, track fastenings, ballast and labor of construction of side tracks, excluding turnouts
17	Station Buildings and Fixtures—Including heating, lighting, plumbing, platforms and walls
18	General Office Buildings and Fixtures
19	Shops, Engine Houses and Turntables—Including transfer tables, pits, oil and sand houses, line and shops houses
20	Shop Machinery and Tools—Including boilers, engines, shafting, cost of transportation, foundations and installation
21	Roadway and Construction Tools—Including tools and equipment of roadway and bridge and building departments
22	Water Stations—Including pumps, boilers, rams, tanks, stand pipes, wells, intakes, dams, piping, foundations and installation
23	Fuel Stations—Including platforms, sheds, pocket chutes, racks and machinery, derricks, booms and trestle approach embankments, concrete floors and foundations
24	Grain Elevators
25	Warehouses—All included in other classifications
26	Docks and Wharves—Ferry landings, mercantile docks, ore docks, buildings, machinery, lighting and equipment—all tracks on docks are included in side track schedule
27	Electric Plants—Light and power—including engines, dynamos, switchboards, machinery, power transmission and distribution lines, lamps, etc., including material and labor
28	Miscellaneous Structures—Including all buildings, stock yards, scales and scale houses and other structures not specifically enumerated in other groups
29	Engineering on Roadway and Structures—Including salaries, expenses, supplies and transportation of engineers, inspectors and architects and fees for inspection of material and machinery
	Fixed by Riggs at 4% of Items 1 to 28 inclusive. Estimated by Hansel
30	Locomotives—Including tenders and all attachments
31	Passenger Train Cars—Including passenger, express, mail, baggage, buffet, dining, sleeping, chair and official cars
32	Freight Train Cars—Including all classes of freight train cars
33	Miscellaneous Equipment—Including steam shovels, derricks, wrecking outfits, unloaders, snow plows, etc.
34	Ferries and Steamers—All vessel properties. Hansel shows separately. See Appendix
35	Engineering on Equipment—Including all engineering salaries and expenses connected with the purchase or construction of equipment — Fixed by Riggs at 3% of Items 30 to 34 inclusive
	Hansel at 2% on Items 30 to 33 inclusive
36	Terminals—Interest owned by D., S. S. & A. R'y in Joint Terminal and Bridge Properties, including engineering upon all structures, Hansel shows separately—See Appendix
37	Contingencies
	Sub Total 1—Physical Properties
38	Legal Expenses—During construction—¼ of 1%, Items 1 to 37 inclusive—Estimated by Hansel
39	Organization, Administration and General Expenses during Construction—Riggs, 3% of Items 1 to 37 inclusive—Estimated by Hansel
	Sub Total 2
40	Interest and Taxes during Construction
41	Furniture and Fixtures
42	Stores and Supplies
43	Working Capital
	Grand Total State of Michigan

TLANTIC RAILWAY

1913 APPRAISAL

SUMMARY

Original Value		Modifications Additions		Modifications Deductions		Modified Totals		Original Totals		Additions		Modified Totals		Higgs—1913 Exhibit 1-A		No.
C.R.	P.V.	C.R.	P.V.	C.R.	P.V.	C.R.	P.V.	C.R.	P.V.	C.R.	P.V.	C.R.	P.V.	C.R.	P.V.	
$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	
				14,756	14,756											1
				12,733	12,733	0	0	0	0			0	0			2
		111	111													3
						0	0	0	0			0	0	0	0	4
				12,260	10,050											5
				16,260	15,770											6
		27	25													7
		9	9													8
				6,877	2,498											9
		4	4													10
		7	7													11
																12
																13
																14
																15
		13,926	105,158													16
																17
						0	0	0	0			0	0	0	0	18
				2,500	1,000											19
																20
																21
																22
																23
						0	0	0	0			0	0	0	0	24
						0	0	0	0			0	0	0	0	25
																26
																27
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																34
																35
																36
				27,524	29,474											37
						16,977,935	12,977,296	14,150,128	11,227,263			14,312,072	11,388,794	15,827,830	12,548,822	
						85,122	85,122	70,000	70,000			70,000	70,000	77,637	77,637	38
						240,490	240,490	100,000	100,000			100,000	100,000	213,951	210,551	39
						17,403,546	14,402,938	14,320,128	11,397,263			14,482,072	11,558,794	15,918,717	12,936,810	
						1,208,757	1,208,757	809,058	809,058			809,058	809,058	1,193,679	1,193,679	40
						12,983	9,735	12,983	9,735			12,983	9,735	12,471	9,353	41
						220,271	220,271	220,050	220,050			220,050	220,050	208,502	208,502	42
						198,000	198,000	100,000	100,000			100,000	100,000	154,000	154,000	43
						18,182,554	16,148,701	15,531,227	12,536,114			15,624,171	12,727,640	17,484,369	14,602,343	